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# Dissertations

read by the

Candidates for the Degree of

Doctor in Medicine

at the

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in the

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I.

# Purpura Hemorrhagica

By

Amos Cummer Blakeslee
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Candidate for the Degree of Doctor in Medicine.

## Purpura

Syn. Hemorrhea Petechialis. Morbus Maculosus.
Purpura Hemorrhagica.

Defn. This disease is characterised by purple spots upon the surface of the body, called petechiæ caused by extravasation of blood under the cuticle, into the substance of the skin, or into the subcutaneous cellular tissue.

Purpura has until of recent date been classed among the diseases of the skin; but to this classification there are many objections.

It has nothing in common with a proper eruption. In cutaneous eruptions, there is always some deranged sensation, or some evidence of vascular irritation, or of inflammation; But in true purpura, nothing of this kind is seen

The petechia are accompanied by no local pain; by no sensation of any kind. There is scarcely ever any prominence of the stigmata; but they are frequently intermixed with livid blotches, with appearances resembling bruises. And both the circular spots & the ill defined vibices undergo, before they disappear, the same changes of color from red to a greenish yellow which a bruise undergoes.

Says Dr. Watson; The anatomical condition of a bruise is exactly the same with that of the diffused livid blotches of purpura. Pressure upon the petechia does not efface their color nor render it fainter except in their nascent state.

Again. These spots are not peculiar to the skin. In post mortem examinations of those who have died of this formidable

disease, they have been seen in the mu-
-cous membranes of the whole alimen-
-tary tube, of the ear and in the con-
-junctiva. On the pleura and pericar-
-dium, on the peritoneal investments
of the abdominal organs, and in those
organs themselves, in the muscles, an
upon the membranes of the brain.

Says that fully eminent man
to whom I have before referred; "This com-
-plaint cannot be regarded as a cuta-
neous one, even in the loose sense in
which that epithet is applied to those
affections which are scaly beneath the
skin and only visible throughout"

This disease is divided, by those who
follow Willis & Bateman, into several
varieties. Wagar divides it into two
great divisions. Purpura Sine febre, and
Purpura febrilis. The first of this division
he subdivides into three orders. P. Simplex

Purpura Urticans and Purpura Hemorrhagica,
of this, purpura simplex and purpura
hemorrhagica, are merely grades of the same
affection; the occurrence of hemorrhage is an
incident to which simple purpura is al-
-ways liable; the purple spots are the result
of hemorrhage in this as in purpura hem-
-orrhagica. Therefore no case can be said
to belong to this variety until the ex-
-travasation of blood ceases. —

The purpura urticans of Bayer
is not a pure example of this disease.
It may be properly regarded as a compli-
-cation of purpura with some cutaneous
eruption; for the following reasons.
1st Unlike purpura there is an erup-
-tion, and this is accompanied by a smart-
-ing, tingling pain, though less than in
true urticaria it very much resembles
it. 2d The spots stand upon a
circumscribed base of a higher color than
the surrounding skin, prominent to

the touch, and can be seen to be so.

In true purpura the petechia are by no means prominent, except when actual dermatorrhagia takes place; nor is there any obvious enlargement of the immediate vessels.

3° In this [illegible] frequently, a process similar to healthy suppuration takes place, a circumstance which never takes place in true purpura.

The Purpura febrilis, of Raye, is obviously a compound disease. True, the initiatory fever of this and purpura are frequently alike; but in this, there is an eruption, prominent, and preceded by exanthematous spots, analagous to urticaria.

There is another variety of purpura febrilis as described by some authors, which is merely the irritative or hectic fever

which occurs in those cases of true purpura when there is blood extravasated into some of the vital organs or into the mucous tissues, obstructing thereby their healthy functions.

Symptoms of true purpura

In general the appearance of the petechia is preceded by various symptoms indicative of constitutional derangement, resembling in many respects the scrofulous cachexy.

"There is languor, debility, a pale sallow Sorrowful countenance.

"So marked is this countenance lamentative says Prof. Hooker, that I regard it as truly diagnostic of purpura" and to illustrate the truth of this statement he related to me the case of a child, which he visited in consultation, in which this symptom led him to decide the character of the disease, though no petechia or hemorrhage

perceptible. The child died some days afterwards, a post mortem examination was made, and bloody extravasations were found upon the omentum, mediastinum and other portions of the internal cavities, proving the truth of the diagnosis.

There are also irregular pains in the head, back, and extremities, diminished appetite, and in general during this stage of the disease, a soft and feeble pulse.

The symptoms, however, are very variable; some cases are attended with some of the above named symptoms, others with others and it is stated by most authors, that as a general rule, their grade of severity, especially as regards the debility, and pains in the back and extremities, may be looked upon as a measure of the violence of the subsequent affection.

In many instances the preliminary symptoms are wholly wanting, and the appearance of petechia or actual

hemorrhage marks the commencement of the disease.

In general the petechia appear first upon the lower extremities and afterwards extend to the trunk and arms and occasionally to the face.

The size of the spots varies exceedingly from the minutest point to several inches in diameter; they have been compared by some to a flea bite to which they bear some resemblance, they have not however the central spot which marks the point where the beak of the insect was inserted.

Their color is also various; when they first appear they are nearly of the color of the blood as it is seen in the capillary arteries, but they gradually fade away as do traumatic ecchymoses, disappearing entirely in from six to ten days. In the mean time however, fresh crops will have successively appeared and spots of various colors are thus intermingled

giving to the skin a mottled aspect.

Two interesting cases of purpura hemorrhagica were admitted into the Hospital in this City during my residence there as assistant. And by way of illustration I will relate them.

The first case was an Irish man, named Michael Shaphain aged 30 of a robust appearance and apparently in good health with one exception.

He had been engaged for several years as a labourer upon the rail road upon the day previous to his admission, while at work upon the Valley road, some 15 miles from this place, he was taken with epistaxis, but as he had been subject occasionally to slight bleeding from the nose for some years, he thought nothing of it at first, but the hemorrhage increased, and the irregular pains in the back and extremities

which were so slight at first as scarcely to have been noticed; soon became intolerable, and before evening he was unable to sit, not from the loss of blood, but from the great nervous prostration. A medical man was called, who plugged the nares and administered lead and opium, but these means failing to arrest or even retard the disease, he advised his removal to the Hospital. Upon his arrival at the Hospital

May 8th. Some of the physicians of the Institution were called immediately, and active measures were taken to arrest the disease, but without avail. All of the symptoms gradually increased in severity, and at noon, in addition to those already mentioned, petechia made their appearance, and upon an examination of chest by the Stethoscope it was ascertained that the lungs were becoming engorged.

At evening a low muttering delirium came on, and a slight hectic fever.

the next morning. (may 8th) the hemorrhage from the nose was increased, and actual dermatorrhagia. laboured and stertorous respiration, and coma completed the scene of suffering.

The second case was an Irishman named James wire, aged 25 yrs.

He had been in this country but four days when he was taken ill.

On the voyage to this country, he suffered six weeks of severe sickness with ship fever, was eating much until his arrival here, at which time, his appetite returned, both for potatoes and whiskey; and by the account given by his friends, both were taken freely—

He was admitted March 14th 1849.

His symptoms at this time were as follows. A pale, sorrowful, sallow countenance, pulse about natural, irregular pains in the head, back and

extremities. bowells constipated, tongue covered with a thick brown fur, nervous depression extreme; great stupor and apparent insensibility; He would answer questions readily; but as soon as he had given an answer, he would close his eyes and commence moaning; so as to be heard in nearly every room in the institution. In the afternoon a slight fever of a hectic character came on.
A cathartic dose of calomel with opium was administered.

March 5th The bowells were moved by the calomel quite satisfactorily, much relieveing the tympanitis which I have neglected to speak of in its proper place. The other symptoms were much the same as on the previous morning. The camphor & ammonia mixture was given in moderate doses at intervals of half an hour. In the afternoon the fever reappeared more severe in its symptoms,

and longer in its duration
Alteratives, and gentle tonics were
given in connection with some of
the narcotics,

March 16th The symptoms
continued the same, except there appear-
ed upon ~~upon~~ the chest an exan-
thematous eruption. For the after-
noon the hectic appeared as usual

March 17th, Upon the chest,
in place of the exanthematous
spots, large bullæ of turbid serum
were observed; and upon the in-
ferior extremities petechiæ
were formed; they were nearly of
a uniform size & color.-

The other symptoms continued
the same, except the fever, which
occurred every afternoon previous in
the form of hectic, now assumed the
type of irritative fever; the pulse was
rather small, hard, jerking and frequent.

March 18th The surface of the body was covered by petechiæ of various sizes and colors. The countenance more sorrowful & livid, pulse rather fuller and increased in frequency, respiration laboured, and the moaning which never ceased, except while he was talking in answer to questions, or in the act of deglutition, grew fainter and more doleful, and the indisposition to muscular action, which it is said, by all authors, always is present in this disease, was in this case perfect. He would lie in one position constantly, unless placed in another by the Nurse, whatever that position might be.

March 19th Ecchymoses large, pulse feeble & intermitting, skin cool & pale, except in depending parts, which parts looked as if they were injected with venous blood, and in truth they were; for, if the leg, for instance

were elevated, the blood would immediately retire to the depending portions, as readily as it would water in a sponge. Respiration stertorous, succeeded by convulsions, and coma, soon followed by death.—

Causes. The more frequent cause of purpura is debility — either from some prostrating disease, imperfect nutrition or from some hereditary predisposition.

According to the report of Raickem, out of 194 subjects attached with Typhus at Volterra in 1817, 156 exhibited petechia. Petechia frequently follow Variola, Scarlatina, and Measles.— Pathology—

The true pathology of purpura is yet a matter of discussion among Pathologists.—

Some contend that the difficulty is owing to a diseased state of the capillary arteries, weakening their coats so that they yield to the pressure of the contained fluid, dilating so as to permit the escape of the red globules. Others say that there is a lesion of these vessels. And others that some change in the blood is the true nature of the affection, that the normal relation between the fibrin & the red globules is changed; that there is an excess of red globules, and this say they predisposes to hemorrhage. But from a careful examination of all of the various theories upon this subject I have come to the conclusion that the extravasation is merely a symptom; that in itself it is the same, whether caused by acute or chronick inflammation, by debility or torpor. If it is true that an excess

of red globules favours or promotes hemorrhage. it is not true that it produces the pale, bloodless countenance, nor the other symptoms which precede the extravasation. Another view in regard to this subject, which so far as I know, has never been mentioned, is, that the disease is not primarily seated in the blood, nor blood vessels. No one will pretend to say, that there can be a lesion of the coats of the capillaries, or a disease of those vessels without a cause; nor that the blood can be diseased without a cause. I have therefore to answer the question; Where is the primary seat of the disease, or what are the causes which directly tend to produce this peculiar pathological condition. Time will not allow me to discuss this subject here, suffice it to say therefore, that the difficulty may exist in the nutritive, or assimilating systems, or in the great nervous centres

An interruption of the functions of either of these systems of nervous influence, necessarily, interrupts the circulation of nutrition, but imperfect nutrition, produced by disease, or abstinence is frequently a cause of purpura, all admit, but no one as yet has adverted to the fact, if it be a fact, that imperfect oxygenation of the blood, leads to extravasation. Science is to be inductive, therefore, shall attempt to prove it, and first let us examine some of the causes of imperfect aeration of the blood, It may be caused by some fault in the respiratory organs. Rheumatism, some organic disease of the heart, and most frequently, of the lungs by disease of the lungs themselves, anything which increases the amount of blood in proportion to respiration — now all of these causes of imperfect oxygenation, have been assigned as causes of purpura.

Secondly let us look at some of the effects of imperfect aeration of the blood.

It is admitted by all that imperfect nutrition favours, if it does not predispose to hemorrhage; and nothing but the loss of blood, or starvation, (more speedily impairs nutrition than imperfect aeration.) for besides the fact that venous or deoxygenated blood is unfit for nutrition, it is (in excess) a direct poison, interrupting, to a great degree, every function of the nervous system, and finally terminating life by coma. Imperfect nutrition always produces relaxation; Take the subjects of scrofula, for instance, in whom nutrition is imperfect for want of a due supply of blood and you see great relaxation; but in relaxation from imperfect aeration of the blood, there are other causes, than faulty nutrition. It produces relaxation by a specific effect upon the nervous centres, similar to the effect of narcotics.

There is still another effect which more directly predisposes to hemorrhage than those mentioned. When the health is active all of the functions are perfect, all of the organs perform their office, nutrition & secretion are complete- therefore a healthy relation between the arteries & veins is sustained. But when the blood is imperfectly oxygenated it is unfit for nutrition or secretion; therefore the veins are loaded with a greater quantity of fluid than usual. Again. the vitality of the blood is diminished by carbonization, and it is now admitted that the vitality aids in its venous circulation. Therefore it is that the veins are distended, giving to the skin that livid color and predisposing to hemorrhage- Another argument in favour of the position taken is, the means which

which have been the most successful in relieving this disease. Venesection has been highly recommended by many authors and is undoubtedly exceeding useful. for it relieves the lungs of the super-abundant deoxygenated blood.

Another remedy is the class of diffusible stimulants, such as camphor. Ammonia. Ether, ol terpentin. & the nitrate of silver and the nervine stimulants. How how do these remedies operate, Some say by relieving torpor as assistants. Others by their tonic & stimulant powers.

But says Prof Hooker they seem to exert a specific influence upon the respiratory nerves, increasing respiratory action. and thereby promoting the oxygenation of the blood.

Diagnosis. The only disease with which purpura can compounded, is Scurvy. The two have been and are still by a few considered the same

but the distinctions are so obvious I shall not mention them. Perhaps Cyanosis may occasionally be mistaken for purpura; but the two diseases are so different that it needs no comment.

Treatment I have already spoken of the most successful treatment, bleeding when the aeration of the blood is imperfectly performed - (and in every case of purpura it is - but more in some than other,) if the patient will bear it. alteratives & the class of nervine diffusible stimulants, & sometimes sedatives - in other respect the patient should be treated upon general principles ——

II.

# Asthma.

By
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# Asthma

## Its Nature, Causes, & Treatment

Asthma has generally been ranked among the nervous spasmodic diseases, and although perhaps sometimes purely spasmodic, what is called asthma is probably of ever connected with, or the effects of, disease of the heart and lungs, and perhaps of other viscera.

It is undoubtedly one of the most distressing complaints to which the human system is subject, turning all the would be enjoyments of life, into anguish and distress, and in many cases threatening to destroy life itself. At the same time it has so generally been considered an incurable disease that probably not as much has been done as might be for its alleviation.

Asthma has been defined as being great difficulty of respiration, occurring

in paroxysms, accompanied by a loud wheezing sound, continuing for a time, gradually diminishing in intensity, until as a general thing the patient falls asleep, but I think that it is not always necessarily accompanied by the wheezing sound, for if I am not mistaken, I have seen persons in violent and distressing paroxysms of this complaint, in whom but little if any sound was audible

It is not every kind of ~~breathing~~ difficulty of breathing that deserves the name of asthma, for respiration may be obstructed by many causes, known or unknown, and may even occur in paroxysms, and still be very different from genuine asthma, and it is very common for persons labouring under any difficulty of breathing, to attribute it to this disease, considering it as a merely inconvenient and not at all a dangerous affection

It is said that the attacks are more common in the night, and especially coming on after midnight, at two or three o'clock in the morning

and during sleep, awaking the patient by the sense of immediate suffocation, and obliging him to rise immediately from bed, and fly to the open air for relief; but there may possibly be exceptions to this rule also, for I am acquainted with one person who is subject to it, who sometimes has the most distressing paroxysm without waking from sleep, although partially conscious of the fact.

But although perhaps it generally occurs in the night, this, I believe is not always the case, especially if the patient has been long troubled with the disease, but occurring at any time day or night whenever the exciting causes are brought into action.

Asthma has been divided into two kinds, the dry and humoral, in the first of which the fit passes off without expectoration, and in the other the expectoration of copious and sometimes profuse, and in one case with which I am acquainted, a membrane, similar to that formed in croup, is coughed up, with

immediate and almost perfect relief of the distress.

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That asthma is essentially a spasmodic affection is evident from a look at the symptomatic character of the disease, ———

First, there is the sense of constriction in the chest, many times a feeling as of a weight of many pounds lying upon the breast, and seemingly preventing the air entering but a short distance the bronchial tubes, and forcing the sufferer frequently to take long inspirations with the sensation of immediate suffocation, and it is said that it is no uncommon thing for decided spasm in other parts to occur at the same time, as of the calves of the legs &c., ———

Again the rapidity with which the dyspnoea comes on, and the suddenness with which it often abates — being suddenly produced by certain causes of irritation, and some by mental emotions — suddenly relieved by medicines reckoned antispasmodic, all evince

the caprice of spasm

If we add to these considerations, the fact that patients who have died of this disease have on examination been found no signs of disease of the heart or lungs, we obtain very strong presumptive evidence, that the phenomena attending a fit of asthma are often the result of pure spasm,

If it be a fact that these phenomena are the result of spasm, the question naturally arises, what are the muscles thus fixed in spasmodic contraction?

It has been affirmed and is now considered an established fact: that the air tubes are encircled by a series of little fibres, or bundles of fibres. They have been traced in tubes of very small diameter. Laennec states that he had distinguished them in bronchial ramifications of less than a line in diameter.

Now supposing these circular fibres to be

muscular, it becomes at once (and apriori) likely that they no less than other muscles should be liable to [illegible] and the phenomena of [illegible] that they are so.

Anatomy would say that the fibres that surround are slender muscles, similar to those that encircle the intestines and urinary bladder, and reveals with the microscope [illegible] that they are really muscles.

But a test less fallible than the microscope [illegible]

Dr [illegible] by a set of ingenious and satisfactory experiments that the lungs and air tubes are actually contractile to a considerable degree under electrical, chemical and mechanical stimuli.

The contractions take place slowly and deliberately; and are followed as soon as the stimulus is withdrawn by an equally gradual relaxation. This is not unlike tonic spasm.

The contractions are rendered

[illegible] by means of [illegible] [illegible] [illegible] with colored liquid, and adapted to the trachea of an animal just deprived of life.

The column of liquid would of course be moved readily by any contractions of the lungs and [illegible] [illegible] of the included air against it.

In one of his experiments, on passing a galvanic current from the margin of the lungs to the insertion of the tube in the trachea, the fluid rose quickly, but gradually nearly two inches, sunk speedily upon breaking the contact, again rose upon completing it, but fell [illegible] upon continuing it a few seconds, when the irritability of the tissues was temporarily exhausted.

This is very much like the behavior of other parts, acknowledged to be muscular under similar influences. He goes further and says, these phenomena were not occasioned by any general shrinking of the pulmonary tissues, for when the lungs were cut [illegible] with [illegible] scissors at right angles to the air tubes, and the

and the open section of these tubes were galvanized they were seen to contract to one half their former diameter, or even smaller—

The contraction was most distinct in the middle sized tubes, but it was sensible enough in the trachea, which was sometimes so far reduced in size that the ends of its cartilaginous rings came together.

Asthma is a disease which is incident to both sexes, but is said to be much more common in males than females, and as far as I have been able to judge this is true, although bad cases are common enough in females. It is also generally more troublesome in adult age than in the young, but although probably all are acquainted with many cases of it in children, to a very bad degree— and many find it leaves them entirely upon coming to mature age, or perhaps near the time of puberty.

But although this may sometimes be the case, it is not its general course— When it

has been [illegible] seldom fails to [illegible] again and again —

It is one of the hereditary diseases, the disposition to it being distinctly transmitted from parents to children, although like all other hereditary diseases there may [illegible] many cases in which it is difficult to trace it back.

Though for the reasons that have been [illegible] asthma in the restricted sense of that [illegible] may be considered as purely a spasmodic disease still in its general sense it is probable that in many perhaps in a majority of cases it is complicated with organic disease within the [illegible]. The principal diseases with which it is connected are, structural changes in the heart, aneurism of the aorta, and emphysema of the lungs.

These changes may perhaps act as so many predisposing causes, inducing in the system a readiness to take on spasmodic action, and

at the same time be themselves aggravated by the spasm or perhaps in some cases even aid in giving rise to them

## Exciting Causes

The immediate exciting causes of this disease are various. Among the most prominent may be named, congestion of blood or other fluid in the lungs — impure air, especially air filled with dust and smoke, and the odor or gases arising from the burning of some substances as brimstone &c — And I have noticed that of dust there is none that will so quickly and so surely, bring on an attack of choking dyspnoea as that arising from feathers upon being moved — possibly owing to the peculiarly acrid minuteness which arises from the disturbance, and which seems to possess a peculiar acrimony, or power to irritate the mucous membrane of the bronchia

Atmospherical influences, changes of temperature &c often act as exciting causes

Depending as it often does in a measure upon congestion of the lungs it is often occasioned by whatever tends to quicken the circulation of the blood, or determine it particularly to the head and lungs, as violent exercise, loud and long continued talking — exposure to cold, particularly to cold and moisture — and it is also said to be brought on by the suppression of evac- -uations — by a weakened or otherwise disordered state of the stomach and bowels, or in other words it is often complicated with dyspepsia —

It is often induced by causes which can act only through the nervous system — with expectation or fear of an attack or the con- sciousness that the customary preventive is not at hand — vehement emotions and passions of the mind — the anxieties of business and the exertion of deep thought —

It has been said by some, and I have heard it repeated by some members of a former class in this

institution, that it is a source of consolation to asthmatics to know that they are exempt from phthisis, but however well it may be to free a patients mind from fear of a disease, knowing as we do the great and important influence it exerts over the bodily functions – still I think this is an assertion which cannot be borne out by facts – Numerous instances are on record of asthmatics dying of tubercular phthisis, and I think that I have seen one or more cases which could not be disputed

## Treatment

From what has been said of the nature and causes of this disease, the plan of treatment which would be most likely to be followed with success, is at once plainly indicated by anodynes and antispasmodics or such medicines as tend to allay the irritation of the nervous system – and to relax the spasm of the muscular fibres – to allow the air freely to enter the lungs, producing their perfect expansion

and thereby affording space for the blood to come in contact with the air, and become oxygenized and prepared to perform its function of sustaining the system ~~~~~~~~~~~~

~~~~~~~~~~~~ Blood-letting has formerly been recommended in this disease but I have never seen it tried, and I believe is now seldom practised, at any rate I think it is evident that the patient needs all the blood and all the strength nature has, to enable him to overcome the attacks ~~~~~~~~~~~~

~~~~~~~~~~~~ Opium is a drug that has been freely used in asthma, and is probably to be more relied upon than any other upon the list of remedies. ~~~~~~~~~~~~

Taken in a large dose at the commencement of an attack, it will oftentimes produce immediate relief — but there are some cases in which opium is not beneficial but rather increases the distress — and I incline to think that it is in cases of dry asthma that opium is found to be most beneficial ~~~~~~~~~~~~

Still [illegible] it [illegible] far from being [illegible]

There is another narcotic which was long used in India for the relief of asthma, and has been introduced into this country from thence — it is the Datura Stramonium or thorn [illegible] and which [illegible] be easily procured by any one — It is used chiefly [illegible] and when it was first introduced into this country, it [illegible] and was sold to persons ignorant of its nature and history at enormous prices. I have known * small packages of the leaves, sold [illegible] [illegible] dried, and smoked in a pipe [illegible] tobacco [illegible] has an odour [illegible] intolerable — if it is taken at the commencement of an attack it sometimes drives it off, but if neglected till a [illegible] period, has but little effect —

A mixture of Opium and Sulphuric Ether Dr Watson says he has found of great service in tranquillizing [illegible]

as good as stramonium, and it seems to me that the ether used in another way of which I shall hereafter speak will be found of far more service

The vapor bath has been occasionally used in this complaint and from its effect in relieving spasms if it was convenient might [illegible]

The lobelia inflata is another [illegible] of which much has been [illegible] class of persons but like every other hobby its virtues have probably been much overrated

Strong Coffee is a common domestic remedy for asthma and has the additional advantage of being a [illegible] and palatable medicine

The Solanum Dulcamara has also been recommended but I believe has not enjoyed much reputation

I shall mention but one more remedy, and upon this I am inclined to place more dependence than upon any, or all the others, not as curing the disease but merely in relieving the paroxysms and which perhaps is all that medicine can do will do, ~~~~~~~~~~~~~~~~~~~~~~~~

It is the inhalation of a mixture of oxygen and ether. It is a remedy which I think may be made use of with the most happy effects and as far as I have known with perfect safety, especially in cases of pure spasmodic asthma unconnected with organic disease ~~~~~~~~~~

It is not necessary to give it in large doses sufficient to produce perfect insensibility, but merely to relieve the spasm which it has the power to do more than any other remedy with which I am acquainted — having also this advantage that it does not leave the system in that state of languor and debility which opium and the other narcotics do. ~~~~

I have seen it given in the most severe fits with the effects of, in one moments time relieving the respiration, leaving it as free and natural as ever

the patient falling into [illegible] sleep, and awaking refreshed and comfortable as if nothing had happened ~~~~~~~~~~~~~~~~~~~~

I think that this [illegible] may yet become one of the strongest antagonists of this disease, and if [illegible] judiciously [illegible] no danger at all from its use; but consider it as safe as any other article in the Materia Medica

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But with all this array of drugs it is oftentimes mortifying to the physician to find that [illegible] little power over the disease — the paroxysms will come and seemingly at their own pleasure, the same as if no medicine had been given [illegible] [illegible] still to [illegible] why it is [illegible] medicine is so efficacious in some cases, and [illegible] ~~~~

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H. C. Bunce

III.

# Nemiology

By

Alpheus Bryant Clarke
of New Haven,
Candidate for the Degree of Doctor in Medicine

# Semeiology

Is that branch of general pathology which treats of the symptoms or signs of disease— some writers make a distinction between the word symptom and sign ——— using the term symptom as signifying the functional or vital phenomena of disease: and sign as applied to the physical indications of change of structure— This distinction may be useful inasmuch as it serves to separate those symptoms of functional derangement from the physical signs denoting altered mechanism— Disease should not be considered as only collections of symptoms but with reference to the pathological conditions which they indicate— Many symptoms have been named diseases: because the pathological conditions producing those symptoms were unknown— as in Diabetes Mellitus— The first enquiry in the morbid anatomy was directed to the Kidneys: but no change was found sufficient to explain the symptoms which existed during life— Subsequent research has invariably led to functional derangement of the digestive or

assimilative organs; may be attributed the cause: and that the morbid phenomena was rather a consecutive principle than the disease — We can not apply to morbid anatomy at each successive stage or change of symptoms: hence the difficulty of ascertaining at these times; the condition of the internal organs: but a certain number of examinations: made at different stages of disease; and a careful comparison with each other will assist us in forming an accurate diagnosis of the individual case — Before attempting to enquire into the signs of disease; we should be able to determine what constitutes a state of health; and taking that for the standard; proceed to trace out any deviations from it — Health has been defined to be "freedom from pain and uneasy sensations and freedom from all those changes in the structure of the body that endanger life or impede the easy and effective exercise of the vital functions — This general definition is insufficient for the purpose of entering into a strict examination of the symptoms of disease; but we may take up each distinct system: as the circulating the respiratory; the nervous; digestive and the nutritive

systems: so long as the different systems are in a normal condition and act in concert: a state of health is the result — but when a departure from this state takes place the equilibrium is lost and disease is the consequence — As we proceed to examine into the condition of each of these systems separately we narrow the circle of our enquiries in such a manner as to obtain an intelligent and perhaps correct view of the case: but if ignorant of the normal condition of the circulating and respiratory: nervous and digestive systems: it cannot be expected that we shall arrive at any correct conclusions in regard to them — This is applicable in a more particular manner in what are called the "Physical Signs" and in proportion as we are able by any means to determine the healthy condition of the different organs: we shall be capable of appreciating the deviations from such normal conditions — In various parts of the body there are organs so closely connected by sympathy that disease of the one will bring on functional disturbance of another — In cerebral diseases there may be vomiting; showing that disease of this organ will produce functional derangement of

the stomach: while in internal irritation there will frequently be delirium, also showing that functional derangement of the brain may take place by sympathy with an irritated state of the alimentary canal— This fact should be borne in mind in the treatment of the case— for the original disease may be neglected and the whole attention given to the sympathetic irritation which will be found difficult to remove while the cause still remains or is perhaps increasing— In investigating disease it is necessary to determine whether any lesion of the texture of an organ has taken place; for when a temperary or permanent alteration takes place, in the tissue of an internal organ, it is important to ascertain the nature and extent of the alteration— It may be said that functional derangement always precedes and produces that of change of structure— There are three important sources from which we may arrive at the diagnosis of disease— 1st the history of the case— 2nd the "Sympathetic signs" arising from the various phenomena attending disease— 3rd the Physical signs as ascertained by exploration and auscultation— Of the first of these: the history of the case; much caution

is required in receiving implicitly the statements which may be made— There is often much vagueness in their descriptions; or a morbid desire to exagerate their sensations: or perhaps from motives of delicasy to conceal their complaints; that too much reliance must not be placed on this source of diagnosis — It is only by a comparison of their descriptions with what appears to be compatible with the present state of the case that we shall be able to determine of pre-existing derangements — Of the sympathetic signs: it is not my intention to describe in reference to particular diseases; although it is with such a reference that a Knowledge of Symptoms is of the greatest practical utility— The general expression of the countenance affords an important source of information to the critical observer — In continued and Typhous fevers, and in all the Chronic forms of disease; there is a distinctive and characteristic appearance of the countenance — The different fevers are so diversified in character arising from the effects of climate; the influence of Epidemics, and the particular constitution of the individual: that the countenance together with the

other symptoms must also be very much diversified—
It would be impossible to notice every morbid appearance
of the countenance for like the morbid conditions of the
nervous system: it is much easier observed and
recognised than described—— The tongue; in disease
presents morbid appearances; which; to a practised
eye affords some of the best diagnostic symptoms of
the different kinds of deranged functions of the internal
organs —— The circumstances to be noticed are its
form; colour; size and the secretions— the manner in
which it is protruded and withdrawn should also
be remarked— It is sometimes protruded with diffi-
culty and tremour; and sometimes it is not withdrawn
in cases of imperfect sensibility —— By an accurate
knowledge of the different morbid states of the tongue
and their attendant morbid affections; the Physician ob-
tains most distinct and satisfactory information ——
The attitude; the surface and the general system may
be studied with advantage as each are characterized
by distinct appearances in different diseases— But I
pass on to a consideration of the third named source of
Diagnosis (viz) the Physical signs— Until a comparatively

late period in the history of medicine: the art of ascertaining the seat and nature of diseases within the thorax by means of auscultation and percussion were unknown— In 1819 Laennec published his first work on mediate auscultation as a means of diagnosis in diseases of the heart and lungs: since which time it has gradually been gaining ground in the estimation of medical men and its utility is acknowledged by intelligent men out of the medical profession who have made it the basis of their examinations for the insurance of life and health— Doct Watson speaking of its value; says "at the present day we are able to obtain more exact information respecting the diseases of the parts within the thorax than of any other invisible part of the body: indeed in a vast number of instances we can tell as accurately as if we saw them, the actual condition of the thoracic viscera— can follow step by step the process of disease or repair in which they are involved— We can penetrate beyond the symptoms which denote deranged function and detect and understand those much less fallible symptoms which arise from alterations of structure— To those who have acquired the skill

of detecting disease by observation and experience; the advantages to be derived from auscultation are comparatively unimportant: but to those who are about to commence the practice of medicine and who require all possible means to assist them in diagnosis no excuse should be sufficient to deter them from becoming masters of the art— We need not neglect to attend to the ordinary symptoms arising from the disease; but may resort to it to confirm what they may have led us to suspect— There are many irregular forms or complications of disease when the symptoms generally indicating these forms; are wanting— as in continued fever, there may be a low degree of pneumonia not developing itself by any of the ordinary symptoms (except perhaps the frequent respiration) of cough; pain in the thorax or rust coloured sputa— The frequent respiration will call attention to the lungs when the use of the stethoscope will readily detect the latent inflamation— So also the feebleness of the pulse is often only apparent and becomes more full and strong after venesection— Here the use of the stethoscope affords valuable means of discriminating

the real feebleness and that which is apparent: for when the action of the heart is stronger than that of the arteries under the use of the lancet the pulse will rise— Pericarditis may often exist without producing any of the general signs of the disease: which are of themselves extremely variable and diversified in their nature— The disease may run a perfectly latent course and the pathological conditions could not be discovered without the aid of the Physical Signs— It is only by practise that we can acquire a perfect knowledge of the healthy sound— It becomes an easy matter to detect those that are morbid: but to trace the change in their character to the cause of this change is much more difficult of acquisition— Dr Latham an English author has simplified and rendered much easier the science of Auscultation by his plain terms and his clear and concise explanation of them— using the word Rhonchus ☞ a snoring sound, and Sibilus a shrieking sound— These he calls dry sounds which are produced by impediments to the passage of air in the Bronchi and vesicles and become sonorous by reverberation— The term Crepitation to the moist

sound which is occasioned by the intermingling of air with a fluid in the Bronchi and their ramifications— when it is situated in the Bronchi we have large crepitation— when in the pulmonary cells small crepitation— These morbid sounds have particular reference to the parts affected and also to the nature and extent of the affection— They do not always occur alone; but are complicated with each other: or in one portion of the lung we may hear small crepitation: in another sibilus: when gradually passing from this to another part of the lung we may hear the natural respiratory murmur— These complications have given rise to corresponding combinations of terms and hence we have the humid vesicular Rhonchus and the dry vesicular Ronchus; the humid Bronchial Rhonchus and the dry Bronchial Ronchus: Crepitous Ronchus and Sibilous Ronchus; terms which are complex and tend to confuse more than to aid the auscultator— They are evidently used to imply degree: but as there may exist crepitation of every degree in the same Lung from the coarse crepitation of the largest Bronchi to the fine crepitation of the air cells and extreme vesicles of the lungs— It is difficult to apply terms which

shall designate every degree of action — There may be some sources of fallacy connected with auscultation, of which Pectoriloquy may be taken as an example — It generally arises from a cavity in the lungs; the result of inflamation and is a direct symptom of such cavity — But it may arise from two other conditions which are widely different from this; and differ also from each other — The one may arise from inflamation and condensation of the substance of the lung; which renders it a good conductor of sound and if confined to a circumscribed part we might be led to point out a cavity when none existed, by the clear and evident Pectoriloquy — The other condition to which allusion was made is a dilitation of the Bronchi — This may dilate in such a manner as to form a distinct cavity; or by contracting and dilating to form several cavities: to be distinguished on dissection by tracing the structure of the Bronchus into the cavity — Chronic Bronchitis is perhaps the most common cause of Bronchial dilitation and from the general symptoms attending both it is with difficulty

distinguished from pulmonary Consumption — how much more difficult when we are able to detect Pectoriloquy and gurgling respiration — These sources of fallicy shew the necessity of not relying solely on any one means of diagnosis — Auscultation gives certain signs — other circumstances must determine whether they arise from an engorged and condensed lung or dilitation of the Bronchial tubes or whether from a true vomica — They also shew that it is perfectly safe to give a guarded prognosis —

In Conclusion; the summary of Dr Latham appears to me the most rational estimate of Auscultation He says 1st that there are some diseases of the chest which in their kind entirely elude it — 2nd that there are some which elude it not in their kind but in their situation — 3rd that there are some in which auscultation is only a help to diagnosis — 4th that there are some and perhaps the larger number in which the conclusions of Auscultation are as unerring as those of sight itself —

IV.

# Placenta Prævia

By

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## Placenta Praevia.

Unavoidable hemorrhage is so called from the attachment of the placenta over the os uteri, so that during the last months of gestation when the neck of the uterus expands, the placenta is partially separated from its attachment to the uterus, severing large bloodvessels, and necessarily giving rise to hemorrhage.

Accidental hemorrhage differs from unavoidable in as much, as the placenta is differently situated in the uterus, not being connected to the os uteri, but situated at some distance from it.

When the placenta is thus situated, the expansion of the neck of the uterus has no tendency to separate the placenta from its connection, and if hemorrhage does appear previous to the commencement of labour, it must arise from a partial separation of the placenta, caused by some accident. A fall or blow, anxiety of mind,

over exertion, and many other causes, any of which may cause a partial separation of the placenta & will be followed by hemorrhage.

This form of hemorrhage occurs in the majority of cases, after the birth of the child, while the uterus is in a relaxed state, not contracting with sufficient energy to close the mouths of bleeding vessels, or to cast off the placenta.

As accidental hemorrhage is by far the most common, and more frequently met with, I propose to pass it by, and return to the 1st division in which the placenta is situated over the os uteri.

Formerly quite a difference of opinion existed, among medical writers, respecting the manner in which the placenta became thus situated.

Some maintained that, at the commencement of gestation, it was attached to the fundus, a body but by some accidental and unknown cause, it became separated from its attachment, and falling into the most depending part of the uterine cavity, it became again attached to the uterus, and was capable of nourishing the foetus as before.

This would truly be a wise provision against the destruc-

tion of the ovum. Could the placenta be allowed time to shift its position, form new attachments and during this time continue its function—

When its attachments are overcome we know that hemorrhage will follow until the uterus is in such a state, that the vessels severed, may be closed by its contraction. This must be quite difficult while the ovum remains within its cavity. Besides if the hemorrhage should be profuse, and large coagula form within the uterus, the stimulus of distention would produce contraction of the uterus, and expulsion of its contents; or if the uterus was in a relaxed state, the hemorrhage might endanger life. The membranes are connected with both the uterus and placenta, so that if the placenta changes its position, it must be lacerated from the membranes, or cause the whole ovum partially to revolve. We know the latter event is impossible—

At the present day it is generally believed that the placenta may be situated, and attached, (at the commencement of gestation) at any part of the uterine cavity, in the majority of cases, at the fundus or body: but it is occasionally implanted, and

[illegible] unfortunately for both mother and child, directly over the mouth of the uterus.

The symptoms of placenta praevia may be divided into suspicious, and those which determine positively its true situation.

The suspicious symptoms appear previous to the end of gestation, more commonly about the sixth or seventh month. Until about this period the neck and mouth of the uterus are very little changed in form — the enlargement of the cavity depending principally upon the fundus and body, but during the last few weeks, when the fundus and body have done all in their power, the neck of the uterus is called upon to contribute its mite to admit of farther enlargement. By its expansion the placenta is mechanically separated and hemorrhage follows —

In some cases it is sudden and very profuse, occurring when the patient is in bed, sitting in a chair or about her household duties, without giving her the slightest warning — The may think that the membranes have ruptured, and the waters passed away; but on examining her linen, she

is surprised to find nothing but blood. The bleeding may cease ere her attention is hardly called to it. In a few days or weeks, it may appear again and as abruptly cease.

It is probable that a physician will be called during the first flooding, or immediately after it. Whether the patient is alarmed or not, a skillful physician knowing the situation of his patient; and the manner in which the hemorrhage made its first appearance, will look upon the case with suspicion and anxiety.

But he cannot know with certainty that it is a case of placental presentation, until he has made an examination. This he would be unwilling to do if the hemorrhage had ceased before he arrived, for if coagula filled the vagina, the introduction of the fingers would remove it, and incur the risk of a fresh attack.

The Diagnosis is attended with little difficulty, when the os uteri will admit the introduction of the fingers. The placenta has a lobular, spongy feel, yields before the finger when pressed upon, and when the

fingers are withdrawn, it returns to its former sit-uation. It would not be likely to be mistaken for the membranes, as they are smooth and convey an entirely different sensation to the fingers— Coagula of blood would be far more likely to be mistaken for it. But coagula can be broken down between the fingers, and pass away, a quality placenta cannot be thus broken. Finally the Placenta has a peculiar feeling, which can only be learned by handling it.—

## Management

In the majority of cases no peculiar treatment is required during the first six or seven months. Subsequent to this period, when the flooding which arises from the separation of the placenta, occurs, the patient requires medical attention— If labor has not gone on full time—the placenta near the cervix, and the uterus is not contracting, the first indication would be to quiet the patient's mind and quiet her fears by assuring her, there is no immediate danger, and that her safety depends much upon her future conduct—

of the hemorrhage has ceased, its return should be carefully avoided. To accomplish this, an examination by vaginal should not be made; for the reason just mentioned. Besides if it could be safely made, such information as would be gained by it, could afford but little in determining the cause of arrest; for as long as the uterus remains inactive, and the os uteri closed, the only proper treatment must be of a palliative nature. The patient should be kept in a horizontal posture, and absolute rest enjoined both bodily and mental. The apartment should be kept cool, she should breath a cool atmosphere, her diet should consist of nutritious fluids, cool and acid drinks; the mineral acids are the best. She should lie upon a hard bed, covered with light clothing. Constipation of the bowels must be carefully avoided; for straining at stool to dislodge hardened feces, would disturb the coagula and endanger hemorrhage. Urging should be carefully avoided. The bowels should be kept in a solvable state, by the administration of a mild aperient, such as the Sulphate of Magnesia in small doses, with a little aromatic infusion of Roses. To assist the movements

of the bowels, or injection of cold water, may be given frequently, which will also restrain the tendency to hemorrhage.

If there is much nervous irritation, excitement of mind or false pains, it might be well to give Camphor or some of its preparations. If the patient is delirious, of a full habit, the use of Opium would be contra indicated for it increases arterial excitement and also the hemorrhagic tendency.

Friends and neighbours who are always kindly volunteering their services on such occasions, and are anxious to make the patient comfortable, by the administration of food and medicine, changing her clothes, or removing her to some more convenient room, should be excluded from the apartment and the patient treated in the hands of a good nurse, who will follow strictly the Physicians directions.

In spite of the most judicious treatment, in the cases of hemorrhage if not reached by medicine, the features of the case will change, and the treatment which has been mostly palliative, must give place to more active and effectual measures.

When hemorrhage is present at the full period of gestation, & particularly if it is profuse, and the pains are insufficient to accomplish delivery, in the natural way, it is indispensably necessary to assist nature by some artificial means.

It is a question of no small moment to decide the proper and most favourable time for delivering women. The praiseworthy reluctance which many practitioners have to forced delivery, when the os uteri is undilated, has, in some cases caused a delay, till the time which would admit of safe artificial delivery had passed, and the cases terminated fatally.

It is a general rule never to allow the woman to die undelivered. But this will admit of some qualification; for it is equally true, that a woman should not be delivered while in a state of syncope. Under such circumstances, the constitution is weakened from loss of blood, and is unable to sustain so great a shock.

We know that patients have [illegible] been dying from too sudden evacuation of water in ascites by tapping. In this case the system seems to receive shock, from too sudden removal of pressure, to which the system had become gradually accustomed.

It is impossible to lay down definite rules which may be followed in every case; for each case is attended with peculiar symptoms. It is generally stated that delivery may be accomplished by turning, when the os uteri is dilated to the size of half a crown piece. Dr G. B. Bellini recommended in cases where there was hemorrhage from a partial separation of the placenta, and the os uteri little dilated, but the symptoms such as to demand delivery; to make an incision into the neck of the uterus, in order to allow the introduction of the hand to complete labour before hemorrhage had continued sufficiently long to destroy the vital powers of the mother.
He cites four cases in which the incision was successfully practiced, on account of rigidity of the os uteri, to admit the introduction of the hands and both mother and child were saved.
He objects to the use of the tampon, on the ground that it leaves the cause of hemorrhage continually in operation, and is only a loss of time, because while contraction goes on steadily, the [illegible] will be torn from its attachments and gives rise to renewed bleeding.

There are, it appears to me, few cases which would warrant making an incision into the neck of the uterus, (when there is no malformation of the pelvis) for hemorrhage is rarely profuse and the uterus for any length of time remains in an undilatable state. When the placenta is attached all around the os uteri so that the blood is prevented admission into the uterine cavity, the tampon may be used and the vagina completely filled with silk handkerchiefs, or any soft material which is at hand, and flooding completely prevented.

The placenta is itself a tampon guarding the cavity of the uterus, while the plug introduced into the vagina prevents the flow of blood in this direction, and time is allowed for the mouth of the uterus to dilate. The use of the plug no doubt is dangerous when the membranes are ruptured, the uterus inert, and the placenta partially attached over the mouth of the uterus, for vaginal escape being prevented bleeding might go on internally, into the cavity of the uterus endangering life; but as before mentioned when the placenta is completely attached all around the os uteri

and the orifice small, hard, or unyielding, the plug is invaluable—

Turning. When the operator decides to turn the child it becomes necessary to place the patient on her back (according to the French) while others place the patient on her left side, in either case she should lie at the edge of the bed, with the nates projecting a little beyond the bed, and the limbs flexed upon the abdomen, with assistance to retain her in this position. The operator, having laid bare his arm and lubricating both arm and hand (preserving the modesty of the said lady,) may either introduce a finger of the patient and gathering his fingers in the form of a cone insinuate them by a semi rotary motion into the vagina, till they arrive at the brim of the pelvis; the os uteri should be carefully dilated by the same motion of the fingers, the membranes perforated, and the hand then passed into the uterine cavity along the abdomen of the child, the feet grasped and brought down through the rent in the membrane. He should be careful to turn the child so that the face may follow the hollow of the sacrum, for it is a thing

is much easier than when turned in the opposite direction. Rapid extraction of the child should be avoided, unless urgent symptoms demand it. As the head comes into the pelvis, if the arms are ever in, they may be brought down by passing one or two fingers over the shoulder, and bringing (one at a time) down over the face. The operator may insert a finger into the childs mouth, and terminate labour as is usual in footling cases. If the uterus does not act with much force, gentle friction over the abdomen with the hand will increase the pains and facilitate delivery.

When the operation is once commenced and the hand has gained the cavity of the uterus, the operator must unflinchingly persevere until delivery is accomplished; (unless some extraordinary difficulty makes it appearance) for if the hand is withdrawn after detaching a part of the placenta, without turning the child, the life of both mother and child is endangered. Some recommend when the placenta is situated directly over the mouth of the uterus, to introduce the hand through the placental mass instead of passing

it at one side. Some objections might be raised against this practice; in the first place, it is no easy matter to pass the hand through the placenta [illegible] outs of the uterus and under the mass, for [illegible] that situation, but this difficulty is greatly increased while it is within the uterus with nothing behind to prevent its being forced entirely from its attachments. If the hand could be readily thrust through its large bloodvessels must be severed and the child most certainly lost. Since the placenta is preserved entire foetal circulation is not disturbed -

It is true the life of the child should not be brought into competition with the life of the mother, but there being not an equal amount of danger incurred to the mother, by attempting to force a passage through the placental mass, as there is by passing the hand at the side which is most easily separated.

A patient may be found, at the [illegible] from loss of blood, pale and cold, the uterus inert, with its mouth widely dilated; and quite unresisting. It would be quite easy to deliver the child in such a case. But the mother would most certainly be lost, for the

uterus would not contract in such a case, while the woman remained in a state of prostration, with sufficient power to close the orifice of the bleeding vessels and ensure her safety.

The patient must be aroused from this state by the administration of stimulants. Brandy, ether ammonia &c may be given for this purpose.

Transfusion of blood has been successfully tried to accomplish the same object. After the stimuli have taken effect, a dose of Ergot may be given previous to delivery, to produce permanent contraction of the uterus, and prevent the loss of blood after the termination of labour.

Artificial separation of the placenta is recommended in cases attended with profuse hemorrhage which cannot be restrained by the ordinary methods, but which danger the life of the patient. At the same time the os uteri will not admit of turning, or, again, the death, prematurity, or non viability of the infant may not require turning for its sake, which is attended with much peril to the mother, provided we have simpler and safer means; such as the detachment of the placenta,

which at once restrains the hemorrhage and guards the life of the parent against the danger of its continuance. The membranes should be withdrawn at the same time that the placenta is detached, and friction applied to the abdomen, or cold, which will answer the same purpose, to produce uterine contraction.

After delivery is accomplished, the bandage should be applied with care, that the uterus may not be allowed to rise high in the abdomen, and become filled, as is too frequently the case, with blood; for of all hemorrhages, this is the worst, as the patient may, while in this exhausted state, be almost entirely drained of blood, and her attendants be entirely ignorant of her situation.

Henry A. Collins.

V.

# Asiatic Cholera.

By
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# Asiatic Cholera

Is known by various names! as Asiatic, Malignant, Indian, Spasmodic Eastern or Oriental, and epidemic Cholera, all used to designate the same disease. That a disease resembling this, has occasionly ben witnesed in all countrys and every age; we have but little reason to doubt, but that form now known as Asiatic Cholera, is of comparatively modern origin, and is undoubtedly of Asiatic birth

We have no very definite history of the disease untill we reach the epidemic of 1817. Though it is said to have prevailed in upper Hindostan, as early as 1762, and in its ravages, to have destroyed 30.000 negroes, and 500 whites. In 1783 it broke out among the pilgrims who where collected in great numbers at a sacred spot on the banks of the

Ganges for the purpose of ablution,
and is said to have destroyed 8 out
of three miserable beings in the brief
period of eight days.

The specimin
to which the term "Asiatic Cholera" has
been applied, made its appearance in
a distinct and unequivocal form in
the August of 1817, at Jessore, a small
Town of British India, about one
hundred miles northeast of Calcutta
here it continued during the succeeding
year also spreading over the entire provin
of Bengal. In 1818 it spread in three
directions, northward to the Himalaya mts,
South to Ceylon, and westward to the coast
of the Arabian sea. From Ceylon it
invaded Malacca, and resuming its
march from Malacca it spread through
the healthy climate of Siam, invaded
China, ravaged Canton and other places,
but did not reach Pekin until 1821

In 1820 it arrived on the eastern coast of Africa at Zanguebar Thus the disease spread to every point of the compass and was not as is by many supposed confined to a west or northwest course. It reached Bombay in Sept 1818 where it destroyed 180.000 victims, continuing its northwestern march, we find it on the shores of the Persian Gulf, in the summer of 1821. It there forked up the Tigris and Euphrates and reached Bagdad in the same year, from Bagdad it crossed the desert to Aleppo, and in 1823 reached the shore of the Caspian Sea, and also extended to the Mediterranean. At this period it seemed to cease for a time in its northwestern march. Yet in the mean time the disease continued its ravages in India passed the Himalayas and invaded Chinese Tartary

In the year 1829 it suddenly resumed its ~~march~~ northward progress. it spread

through Circassia to the river Don which it ascended and thus Europe was fairly fairly invaded in 1829. Ascending the Volga the epidemic reached Moscow in Sept 1830. and St Petersburg in 1831

Thence passing along the coast of the Baltic, and following the course of the Elbe it reached Hamburg in Oct 1831. We next witness the disease in England it gradually passed from Hamburg to Sunderland and which place it reached. Nov 9th 1831

It reached Edinburgh in January 1832 in February following it invaded London, and in March of the same year it reached France and Ireland

From England we find the disease extending to our own continent, it was first manifested at Quebec on the 8th day of June 1832. and on the 10th of the same month at Montreal. On the 24th of June it unexpectedly appeared in New York, while the intermediate towns and provinces

remained up to this period free from the disease. The ravages spread over the United States generally; and in the summer of 1832 invaded Mexico and the following year appeared at Havana.

Returning apparently from America the Cholera resumed its ravages in Europe and at this time visited Spain, France, Rome, Sicily, and portions of Germany. We are not authorized to say that the epidemic of 1817 has ever subsided. Once its ravages has for a time abated. Yet it has never ceased to exist in some portion of India. Within a few years however the disease has acquired new activity, and now again appears as a wide spread epidemic. Since the spring of 1846 it has been gradually advancing from Western India until now A.D. 1849. we are again visited by this terrible scourge.

The precursive period of Cholera is marked by a sense of sinking about the epigastrium, defective energy of the digestive apparatus, and diarrhoea. This diarrhoea is a simple looseness of the bowels; the alvine discharges being not at all changed in appearance. If permitted to go on unchecked these thin and bilious colored discharges, change into the rice water evacuations. The invasion of the disease is known by these thin, rice water evacuations; having no odor and coming away generally without any natural sensation. Sometimes the attack is ushered in by vomiting and cramps, sometimes by vomiting and purging, though more frequently all of these are present.

Collapse is denoted by augmented thirst, shrunken cadaverous aspect of the countenance, shrivelled appearance

of the hands and fingers, cold tongue, cold breath, extremities cold and blue, suspension of urine, voice husky and faint, scarse perceptible pulse, and calm possession of the intellectual faculties

In approaching the subject of the Cause of Cholera, every writer must feel overwhelmed with the magnitude and obscurity of the question to be solved; and being surrounded by little else than doubts and contradictory theories, must be tempted to abandon the investigation in despair. The efforts made to discover the intrinsic cause of Cholera, have been directed to two general sources, namely, a specific virus and certain atmospheric or meteorological changes, as among these I will mention, the supposed influence of moisture, as in low marshy places, banks of rivers, or the shores of the sea &c, also of Comets, Earthquakes, Tornadoes, unusual and terrific clouds, electrical changes, and many other phenomena which happened to coincide in point of time with the prevalence of the disease which they were supposed to have caused

In most of these alledged causes however we recognise merely a favorite hypothesis which some zealous reasoner has brought forward, hoping to explain a mystery which has so long puzzled the world; and instead of finding any relief by adopting such explanation, it only redoubles the difficulty by adding its own incomprehensible obscurity to the mystery which it seeks to explain, Therefore leaving the explination to those who may or have further investigated the subject I shall proceed to give a brief sketch of this terrific malidy as it appeared in my native village, "Franklin Ohio," our manner of treating it and the sumps attending such treatment

It may be worthy of remark that our village is situated on the great Thoroughfare between the Cities of Dayton and Cincinnati at which places the Cholera has been raging

for some time prior to it appearance among us, in consiquence of which there was great alarm existing in our community, and measures were early taken for the prevention of the disease, such as the removal of all impurities, all were advised as to diet and drink, dry and protection of the surface, exercise, Visit of the mind &c Yet notwithstanding all these precautions, my father was called in haste on the 4th of July to Mrs Pratt age forty, she had eaten largely on the evening previous of fish which had been taken from stagnant water, purging and vomiting had come on almost simultaneously about an hour before medical aid had been called, upon our arrival we found him purging, vomiting and slightly cramp discharges of the rice water character, warm applications were immediately made to the extremities, mustard plaster to the abdomen

and the following Rec. administered
Callomel 20 grs Capsicum 20 grs Gum Camphor
10 grs. a favorite Rec of Dr Cartwright.
a physician of the South, whose practice
was attended with great success during the
prevalence of the Epidemic in 1832 and three,
and one in which I place great confidence
when early administered. This was
immediately rejected from the stomach, the
dose was repeated, but like the first rejected
as were all medicines which were subsequ-
-ently administered. The patient
continued sinking rapidly the discharges
became involuntary cramping severe
extremities cold and pulse scarcely percepti-
-ble. Mustard plasters were applied to the
extremities. Enemas of Act of Lead 10 grs.
Starch water 1oz Laudanum 3i were given
and patient assisted in retaining them by
means of a cloth. Still he continued
growing worse, became pulseless, tongue
and breath cold and the surface covered

with a cold presperation, while purging 13
vomiting and cramps had ceased
Stimulants and other medicines were
then given him, none of which were
retained. The case terminated fatally
in about four hours from the time of our
seeing it

The case which I have
mentioned is but an instance of the
many which followed it, not a day
passing but one or more such cases
occurred, and for some three weeks
after there was not a single instance
of recovery from the collapse stage
The next case which I shall
notice, Mr Aron Frazie aged 22
years was attacked July 25th with
slight diarhoea, July 21th
suddenly fainted and fell, followed
with cold sweat and great exaustion,
placed him in bead, administered

Aether & Camphor, made warm applications and he soon revived, then gave him a dose, say 15 gr of Calloma-el with Morphiene, and advised him to keep quiet, on the morning of the 29th were called to the patient again, he had ben eating of Cheese Rasins &c found him vomating and slightly cramped, had ben purging all night, cold sweat and small quick pulse, pursued the ordinary course of treatment, but as in the cases before mentioned, all medicins were rejected from the stomach, the patient continued sinking rapidly and no more favorable termination could be anticipated, than that of the preceding cases, we now came to the conclusion that all cases treated in this way must die, and determined upon persuing the practice of others no longer but by reason

The first inquiry which suggests itself to our mind is — what is the condition of a collapse case of cholera? The immediate or predisposing cause being hidden or unknown, we can only reason from the condition of the patient — we find the energies prostrate, the serum of the blood poured so much out, that it becomes stagnant as it were in the smaller vessels, the liver secretes no bile and why? there is no blood supplying the smaller vessels, from which to secrete bile, for the same reason the kidneys secrete no urine, and the extremities become cold shrunken and bodden, The second inquiry is what will remedy this condition — something is demanded which will supply the deficiency of serum — Our patients must be almost immediately brought ice or ice water, in this stage

What would be the effect of this upon 86
the absorbents, would not the incoming
in contact with the absorbents, produce
a contraction of their mouths and they
once more fulfill their proper functi-
-ons, To me it seemed specifical
adaptable to the case, and as for
some unaccountable reason there was
a strong prejudice against the use of
ice we advise it to be administered
in small quantities, when leaving the
patients who required attention we left
him some hoping that any thing
could benefit him. You may
imagine our surprise when upon
returning after some three hours absence
we found the patient whom we had
left in the very lowest stage of collapse
now with a perceptible pulse
blueness of the skin almost disappeared
the surface warm and moist, The
skin as it were filled out and the

voice returned to its natural tone. The statement which they gave us, was that the patient having once tasted the ice it was impossible to satisfie his demand, and that he had eaten during our absence fully a gallon of ice, all of which had been retained. We now administered Callomel and other medicines in conjunction with the Ice, not however allowing the ice in so large quantities as had been, he continued doing well, during the night passed a little urine, had two small discharges from the bowels of a greenish color, and from this time gradually recovered. Three and but three cases occured after this Mr John Martell, Mr Charles Hughs and a daughter of Mr Charles Saunders all of whoon recovered from the lowest stage of Collapse under this treatment. The first of the last

mentioned cases relapsed after the third 15
day of his convalescence from an error
in diet, which proved fatal. This
was afterwards adopted in surrounding
villages with almost equal success

VI.

# Variola.

By
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## Variola and its Modifications

It is supposed that the ancients were not unacquainted with this disease although the time and place of its origin is unknown. It is thought by many to have been known to the ancient writers on medicine but no work has been handed down to us bearing a description of it so that it can be traced with any degree of accuracy. Some think it was known nearly fifteen hundred years before the Christian Era and Gibbon thinks that the boils and blains of Egypt was the small-pox and that Job was afflicted with this disease. The first distinct account of its existence is its conveyance from China to Arabia in the sixth century and for the first description of it the credit is given to the Arabian physicians

From Arabia it spread through Europe

It is not known at what time it was introduced into Great Britain but it was common there about the end of the twelfth century and was one of the greatest scourges of that country till Jenner deprived it of its terrors by the introduction of vaccination. Perhaps there has been no single disease with which mankind has been afflicted that has numbered so many victims both on our own continent and the other as the small pox.

The first account we have of its existence in America is its prevalence among the Indians in 1633 no doubt brought among them by the colonists. A general fast was observed throughout America in 1638 on account of the small-pox and other pestilential diseases. Since that time we have statements of its prevalence in every part of the continent with more or less violence.

The cause of the disease is a distinct or specific animal poison spreading through the atmosphere and following the direction of the wind the atmosphere being loaded with the infectious principle. It is communicable by breathing the infectious atmosphere also by contact either with the patient or his clothing. It is shown to be infectious through the atmosphere by persons becoming affected by it having had no contact with it and not having been exposed to its influence except by breathing the atmosphere of the room where the patient is ill with it or the smoke from burning the clothes of a patient affected with it.

It seems to be modified by some unknown principle as at times it appears as an epidemic sparing neither age nor any condition of life and again appearing in sporadic cases without extending to any distance or with any degree of violence.

It is thought more fatal in the extreme

heat of summer or cold of winter than in the milder seasons of spring or Autumn.

Surrounding circumstances have a great influence in modifying the disease as in the basement of a house or valley it will be more severe than in the attic or some elevated situation. Heat increases the severity of the disease as does the peculiar predisposition of the individual one having it very lightly with slight fever and very little eruption while another under the same circumstances may have it in its worst form. If a person be in ill health at the time of the attack it is thought to be more severe. It may attack a person at any period of life and the predisposition is generally discharged by the first attack although there are some exceptions to this as cases are recorded where persons have had two and even three separate attacks

I have seen a man who had it in its regular form at two different periods of

since with well formed pustules on the face and fills the marks of a former attack with an interval of about thirty years between them. Good says persons are less susceptible to a second attack who have had it lightly at first as when they have it in a Confluent form it shows a predisposition to the disease

The fetus has been known to be affected with it as pustules have been found at the time of birth. A milder form has been produced by inoculation from the pustules. This was introduced into England in 1721 by Lady Mary Wortley Montague and the same year was introduced into Boston by the Rev Cotton Mather and was used as a prophylactic for some time. Small-pox is divided into two varieties the Distinct which is the milder variety and the Confluent.

There are besides many complications and modifications which may be included

under the general title of variola id.

The course of the disease may be divided into four periods. The first that of Incubation the second Eruption third Suppuration fourth Expiration. The period of Incubation is that from the reception of the poison to the precursory fever or eruption which varies from seven to twenty one days but the more common period is about fourteen days. During this period no symptoms of indisposition occur the person being apparently in good health.

It is thought by some to be more severe when this period is of short duration.

The second period or that of eruption or fever commences with a feeling of languor some pains in the back and lower extremities chills with flushes of heat and pain in the forehead. More or less nausea and vomiting with pain in the epigastrium and sickness of the fauces ensues. The skin is by turns white with a red point

bowels to fill unnaturally and high colored and toward the end of the third day the tongue becomes of a red color, about the close of the third and commencement of the fourth day the eruption begins to make its appearance first on the face and neck then on the breast arms and abdomen and lastly on the lower extremities. The eruption occupies not only the skin but the mucous membrane of the mouth and fauces and has been thought by some to extend into the stomach and intestines. It commences with small papillae or pimples which by the middle of the second day become small elevations with inflamed bases and the cuticle seems distended with a semi-transparent plastic lymph. Toward the close of the second day the pustules about the face present central depressions and soon all follow the same course. Where there are but few pustules they sometimes

remain elevated or pointed but if numerous, there is a depression in the centre. About the fourth day they are of a whitish color and surrounded by a pale areola which when the pustules are numerous run into each other and give a red appearance to the surface. The fluid becomes more and more abundant and extends to the base of the pustule and changes to a purulent character. These changes generally take place from the fifth to the eleventh day but more frequently about the seventh and then commences the third period or that of suppuration. In this period the pustules fill up and assume a spherical form the face and limbs swell and sometimes the eyelids become so much swollen as to close the eyes entirely. Towards the 9th or 10th day the swelling of the face subsides but the extremities continue swollen with great soreness over the whole body. This period is attended with great

soreness of the fauces and a copious secretion of a very thick viscid saliva which sometimes becomes so thick and tenacious that it is spit out with difficulty and renders swallowing very painful. During the latter part of this period a strong and very peculiar odor arises from the patients body which when once recognized will never be forgotten known by the name of the small-pox odor. Suppuration commences on the face and proceeds to the extremities. As it advances the pustules become yellow and of a darker color and arrive at maturity on the twelfth day or thereabouts. Sometimes they remain stationary for several days but commonly a brown spot makes its appearance as soon as suppuration is complete which marks the fourth period or that of Desiccation which always commences on the face and extends as in the order of the eruption this part being often covered with scabs when on the rest of the

body they have scarcely arrived at maturity. These scabs generally fall off from the [illegible] to the twenty first day and leave a dark spot and when severe pits and seams are left with discolored patches.

The eruption on the mucous membranes is commonly resolved without the formation of ulcers or any thing that can be considered as a scab. This is the usual course of the distinct form although there are many irregularities in the length of the different periods arising from causes before enumerated.

Confluent Variety—

This is only a more aggravated form of Variola as there is every grade between the extremes of the two varieties.

In the fully confluent form the fever is more violent the pain in the back and loins is more severe nausea and vomiting more distressing and obstinate and all the febrile symptoms more violent.

The heat of the skin is very great thirst urgent tongue covered with a brown or black fur and the nervous system very much depressed. In the Confluent form the fever is said to be of a Typhus or Synochus type. The more severe the disease the sooner the eruption appears as in this form it is usually from one to two days earlier than under the same circumstances in the Distinct variety. In some instances the eruption appears as early as on the second day and does not undergo the same change as in the other forms. The pustules do not fill up but are more depressed and less plump and run together giving the face the appearance of one continued eruption. There is not the same abatement of fever upon the appearance of the eruption but it continues throughout the whole period of the disease. The secondary fever is more strongly marked and it is at this stage of the disease that death more

frequently [illegible] Watson thinks the eighth day of the eruption the most perilous and the second the most perilous week.

Both forms are attended with sore throat and more or less salivation which continues for several days. The pock are less regularly developed and do not rise above the surface but large portions of the skin particularly the face are apparently covered with a layer of pus beneath the scabs and the pustules seem fused together in one mass of suppuration. The face and scalp often swell so as to close the eyes and entirely obliterate every feature. When with these appearances we take into consideration the almost intolerable factor that exhales from the patients body the appearance is truly revolting. Should the patient survive the period of suppuration he has now other difficulties to encounter as inflamations of various kinds may supervene as of the fauces larynx or pneumonia pleurisy dysentery erysipelas or ophthal-

-mia may arise and to complete the suffering abscesses form and boils appear on the joints of various parts of the body. Measles are said to exert a peculiar influence on this disease as the eruptions will remain stationary when measles make their appearance and after measles have run their course small-pox will go through its regular form.

It may perhaps be expected that I should speak of Varicloid as it is sometimes called Modified Small-pox as a modification of the disease we are considering. Varicloid has been thought by some to be a peculiar contagion but that it is nothing more than modified variola can I think be seen by the fact that a person partially protected subject to the influence of variola may have varicloid and a person unprotected subjected to varicloid may have small pox in its very worst forms. There is every shade from that having the least resemblance to variola

to that having a near approach to the regular disease. The variolous fever occurs in those wanting but little of being perfectly protected and without any eruption. Such a fever in slight cases is of a few days duration comes on in persons who have been previously vaccinated exposed to the contagious influence and I know not that it can be satisfactorily explained in any other way.

In the more severe forms there is a greater severity of symptoms resembling those of genuine variola with rigors headache vomiting and all the regular symptoms but the eruption not having the appearance of that disease. One of the most striking circumstances in this disease is the slight eruption when compared with the severity of the symptoms. The eruption in varioloid is of much greater variety than in small-pox as in some cases nothing but mere

papillae are seen in clusters they proceed to an imperfect suppuration and dry upon the third or fourth day in others they proceed rapidly but stop five or three days short of the regular period. Another feature is the absence of the odor so well known in the regular form of the disease which is either entirely wanting or at the most scarcely perceptible. There is no secondary fever in varicloid which with the absence of the common odor and the short duration of the disease with the eruptions above enumerated will commonly be sufficient to distinguish the disease. It does not leave any pits or marks behind and rarely proves fatal.

Treatment. The treatment of this disease was for a long time misunderstood and was such as fatally increased the mortality of it. Medical opinion is said to have undergone a change on this subject. Formerly it was supposed

that the eruption was an effort of nature to rid the system of noxious matter which if retained must prove fatal and it was deemed important to favor instead of suppressing the process. For this purpose fresh air was admitted but clothes were heaped upon the patient and he was fed with hot and stimulating drinks.

But as the course of the disease cannot be shortened and as the danger arises from a copious eruption occasioning long continued irritation and great weakness it is evident that we should not endeavor by hot and stimulating means to bring out a copious eruption but repress it. The comfort of the patient should be studied and means employed to allay the nervous irritation which is so common. The treatment must be on general principles as there is no specific for the cure of this more than of any other disease. In mild cases it will be

sufficient to guard the patient from injurious influences as confined air hot and stimulating drinks and to guard expose to cold and give refrigerant diaphoretics and cooling acid drinks with an occasional laxative if necessary. In severe cases the danger is great under any form of treatment. At the commencement of the primary fever a full dose of some efficient cathartic may be necessary and the intestines are to be prepared and the bowels kept open by saline cathartics thus Rhubarb Castor oil &c as circumstances may require. The effervescing drinks may be given to allay thirst and quiet the irritability of the stomach. The skin may be sponged with cold water especially the arms and face with great relief to the patient. Bleeding is not recommended unless there be signs of congestion in some important organ as the lungs or brain when a small amount

may be taken either by general or local depletion. We should not bleed simply to moderate fever or lessen eruption as we diminish the strength of the patient more than we gain by moderating the violence of the symptoms. If there be wakefulness opiates in the form of Dovers powder with Calomel and Camphor will be beneficial.

The treatment should be antiphlogistic generally both as to diet and medicines.

Upon the occurrence of the secondary fever so common and dangerous in this form of the disease the diaphoretic plan of treatment must be kept up according to the symptoms and strength of the patient. Opium may be used to calm nervous irritation and combined with Calomel and Ipecacuanah or Tartarized Antimony is an excellent remedy to combat inflamation. Should there be strangury diuretics must be used as infusion of Buchu Nitre &c. During the period

of the suppuration it will be necessary to support the system under the prostration which attends and for this purpose tonics and stimulants may be used as the Sulphate of Quinine infusion of Bark Malt liquors Wine Brandy &c and in due proportions -ate to the wants of the system. It is difficult to lay down any plan of treatment suitable for all cases but we must combat symptoms as they arise. Attention should be paid to the diseased surfaces and cooling demulcent lotions be applied as Lead water & milk and water or Cream and care be taken that the patient do not irritate the surface by rubbing and scratching which he will be very apt to do if being the only comfort he can enjoy. It has been recommended by some to prevent pits and scars by cauterizing the pustules on the third day with the Nitrate of Silver or by applying the mercurial plaster to the commun-

-ment of the eruption and a variety of other remedies have been recommended but as I have never seen them employed cannot speak of them with confidence

This is the usual course and treatment of the disease as I learn from the books and from experience both on myself and others. Something might be said of the treatment of the milder forms of the disease but as it must be on the same principles as already described and as this Dissertation is already sufficiently Chronic I will close by recommending the prevention of the disease rather than the cure. &

VII.

# Morbus Brightii.

By
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# Morbus Brightii.

The disease to which the above name has been given - has been also known by other names. Some of these names are derived from symptoms & others from the pathological condition of the organ affected. Of the former class the term "Albuminuria" is the only one which has obtained much currency - while the phrases "Granular Kidney" "Mottled Kidney" - "White degeneration" &c are specimens of the latter class. The impropriety of naming a disease from one symptom is evident - as we know there are many diseases when the most common & even important symptom is absent & still no doubt would exist as to the diagnosis. So also - names derived from a single pathological appearance are not sufficiently comprehensive or appropriate - as the appearance might change during the progress of disease - so that it would not be easily diagnosed by different persons - meeting the disease in different stages.

The name selected - although not the most euphonious - seems free from all such objections & conveys no theoretical ideas - nor in any way mislead.

The investigations leading to the discovery of this disease are all of recent date. It was noticed by Blackall that in certain forms of dropsy, the urine coagulated upon application of heat & he made use of this fact to distinguish different forms of dropsy & to apply different treatment - but it is easy to infer from the cases related by him that even with this important symptom in common - there are so many dissimilar points as to shew that these cases were the results of different pathological states. He did not carry his post-mortem examinations sufficiently far to ascertain the conditions of the internal solid organs coincident with & causative of these effusions. It was going very far towards a correct division of the - then obscure subject of dropsy - to point even this diagnostic & he deserves a more prominent place in the history of this disease - than is usually assigned him.

Moreover it was he who first called to his aid the Chemist - which call he has so promptly obeyed & which aid he has so efficiently & unsparingly given. At a more recent date Wells of St. Thomas Hospital investigated the subject of dropsy so far as to notice on one or two occasions - the condition of the Kidney coincident - but he laid down nothing definite It was reserved for Dr Bright of Guys Hospital to investigate the subject with that energy & thoroughness which have so eminently characterised him & to establish by careful & extended dissection = that this peculiar disease existed - that it was more common than any physician would suppose - that it was coincident with if not causative of - the most grave - extended affections, both functional & organic of the other viscera - especially of those most vital - that it was mild & insidious in its approach - alluring & deceptive in its progress - numerous & varied in its complications - sure & fatal in its termination -

For these reasons & more especially as he

laid down a plan of treatment which has never been materially improved - it is appropriate that the disease should bear his name. The disease has been still further studied by Christison. Rayer. Gregory & a host of others.

Pathology - This has never been fully settled. The peculiarity of the structure of the internal solid organs, must make the application of general pathological principles a matter of difficulty. Bright made three forms of the disease - viz 1st a state of simple debility of the Kidney - in which it seems to lose its usual color & firmness becomes of a light or yellow color & connected usually with a cachectic state of the body. 2nd In this state the cortical or secreting portion is converted into a granular texture & generally an interstitial deposit of an opake white substance - 3rd The Kidney becomes quite rough & scabrous externally & has a semicartilaginous structure - Other writers have made a greater number of varieties - but it is now the prevailing opinion that there are

all stages of one & the same disease & which seems to be an inflammation of the cortical portion of the Kidney which inflammation is more or less chronic in its character.

There are others - & their authority is weighty & their numbers increasing - who consider this disease - "not essentially a renal disease, but essentially & primarily a disease of the blood". They say that the primary blood-changes are the result of error in the primary or secondary processes of digestion. They say that the diseased Kidney is merely the anatomical lesion & that this organ is ordinarily affected as scrofula seizes upon the lungs or cancer upon the breast or uterus. There are some who consider the disease as a fatty degeneration of the Kidney - & there are also many others theories of little importance. However this disease is originated, it is evident that an affection of so important an organ could not exist without changing the constitution of the fluid excreted by the organ & the blood from which it is excreted.

Therefore we find in this disease that the urine has not its normal constituents & the most marked peculiarity is the abundant proportion of Albumen - which is not found (or at [illegible] in small quantity) - in healthy urine - The proportion of Albumen varies from an exceedingly small percentage - up to those cases where the urine seems to be all Albumen. But this symptom is also present in others diseases - so that this alone might be a deceptive sign.*

Another & more important sign & fact is derived from the low specific gravity of the urine in this disease - it is frequently as low as 1008-4 - whereas the average of healthy urine is 1020.

The fact referred to is the great deficiency of the distinguishing constituent of healthy urine viz Urea & this fact deserves much notice as a symptom of the disease. When Albumen appears in other diseases - the Urea does not diminish in proportion as the Albumen increases. but the percentage remains as in health - The specific gravity in the pseudo-

* Albumen appears in the urine in.

| | | | | | |
|---|---|---|---|---|---|
| morbid states of blood | Scorbutus. Purpura. | & | Functional | Haematuria Renal Hyperemia | Mechanical Active Passive |
| | | | Nephritis | | |

albuminous cases is not so low- & this is another mark of importance. If the kidney fails to excrete urea from the blood- the urea will act as a poison circulating through the system & this explains many of the complications, especially implicating the head & serous surfaces.

Of the pathology of the complications common in the progress of this disease- it is not necessary to make mention- They are numerous- but are governed by general pathological principles-

The most common are those of the serous surfaces, next. cerebral disturbance &c.

Notwithstanding all the investigations connected with this disease (& no disease has commanded more able & industrious investigators)- there is still a wide field for research- indeed- there is no disease more extensive in its effects- or which affords so many instances of the mutual dependence of organs & functions- or is so fertile in facts interesting to the student of animal chemistry as the disease in question.

Etiology. The various causes either predisposing or exciting- which give rise to this disease, may

mostly be divided into two different & distinct classes viz. mechanical & other. The mechanical consist of direct blows upon the lumbar region or any violence calculated to strain or in any way injure the Kidney - as illustrated in the case of Anderson - annexed - Also the customary flexed position of the body in certain employments may prove an exciting cause as the annexed case of Jacques. Tumours pressing upon the renal vein or any obstruction of the renal circulation may give rise to the disease. Of the other class - the causes are many & varied - any circumstances tending to depress vitality - as habitual exposure to cold & moisture - want of sufficient clothing - habitual intemperance &c. Certain diseases seem to induce disease of the Kidney - as disease of the heart or lungs & scarlatina (as in one case which fell under my notice & a very persistent case). It may become organic from having been functional - The compensation of action between the skin & Kidneys - gives rise to many cases - from suppressed perspiration &c.

Symptoms. The symptoms of this disease vary

because the severity of the disease varies much. Sometimes the disease is acute - with marked intensity in its attack. in other cases it is gradual in its development & more chronic in its progress. In the former case the patient feels a severe pain - deep seated in the upper part of the lumbar region & extending towards the inguinal region. thirst - great debility - nausea or emesis - headache - pulse - full - hard & rather frequent. & if blood be drawn - it will be buffed & on analysis, shew a superabundance of urea. The urine will be scanty - high colored & albuminous - sometimes haematuria. Skin dry & warm & the healthy appearance of the countenance fades. At the same time, or soon after, oedema appears in the face - ankles or some situation where the areolar tissue is loose & permeable. But by far the majority of cases do not commence in this sudden & severe manner. It has been remarked the disease is deceptive in its incipient stage. & is frequently much further advanced than the patient or even the Physician suspects.

The first symptom that arrests the patients

attention, may be the oedema. or headache may trouble him. He may not notice any change in the quantity or color of his urine. Generally he says he has been sick for some time - presents an anemic or chlorotic appearance - has a dull dirty look. cold extremities - complains of anorexia or some disturbance of digestion - on enquiry it will be ascertained that his urine is scanty, of a pale straw color - perhaps a watery-like smell & on testing, it will be found to coagulate freely. But there are few diseases which pass through such a range of symptoms - or disturb so many functions. & for this reason, unless its frequency & importance be kept in mind, mistakes in diagnosis may occur. The primary & sympathetic symptoms must be kept distinct. But by far the most indicative diagnostic is derived from the coagulability of the urine. There are different modes of testing the urine for albumen. It is well known that heat (160° Fahrenheit) will coagulate Albumen This test is daily performed for culinary purposes. Nitric acid dropped into urine, if albumen be present. Chemists use other & more complex modes, but the

modes mentioned will be found sufficient, especially if care be taken in the use of these tests, in order that the nature of the precipitate be not mistaken.

We may test the urine of a patient known to have this disease & yet find no albumen - the urine must be tested the next day & the next, soon it will reappear. The disease has neither diminished its nature or intensity & we find in this as in other chronic diseases - that temporary improvement may come & go without any obvious reason & not diminish the certainty or fatality of the result. The absence of urea in the urine has been before referred to, & is an important feature in the disease. In the diagnosis of this disease all these changes of the urine must be considered.

Treatment. In many diseases - the indication is plain & the treatment simple, but this disease, from its obscurity, from the number, importance & severity of its symptoms & coincident complications, demands varied & comprehensive treatment & in fact presses into service most of the effective modes of therapeutic action. In a general way the treatment may be divided into

Blood-letting. Purgatives. Diuretics. Sudorifics. Tonics. Mercury. Counter-irritation. Acupuncture. Paracentesis & Hygiene — Blood-letting — Although this affection is recognised as being inflammatory in its nature — it blood letting unless early in the disease or topical in its application is not generally appropriate. It is a remarkable feature in this disease, that it tends rapidly to diminish the proportion of blood-corpuscles. It would seem as if the Urea uneliminated & still circulating, acted as a poison to the vitality of the blood & as its vitality is diminished, nutrition & enervation are impaired. Therefore this remedy — though efficient at its proper time, must be used sparingly & carefully. The only proper time for venesection would be at the commencement of an acute attack, when the pulse is full & hard — at this time, its use should not be so free as in serous inflammations. The usual precautions in regard to the position &c of the patient, should be taken in order that blood may not be wasted. Topical depletion by means of scarifications with cups, can be more freely used. It has the advantage

of assuming that a small loss of blood compared with the relief & benefit which it gives. In the case of Rosa McGuire. the severe pains in the lumbar region were entirely relieved & that repeatedly. by the loss of a ℥j of blood. This cupping includes the counterirritation of scarification, which in some applications of cupping seems to constitute the chief benefit derived from the operation. These means are to be used during acute attacks or in occasional exacerbations.

Purgatives—

This is by far the most important class of medicines employed in this disease. They are used in some form - in nearly all stages, especially to reduce oedema, which is an almost ever present complication—

In all cases where doubt exists whether blood-letting or purgatives should be employed - the latter should be resorted to. An important reason for this preference, is found in the fact that purgatives do not so diminish the proportion of blood-corpuscles. & this remark would apply to other diseases, in the treatment of which, similar indications are to be fulfilled. In the selection of cathartics, there is much choice. The saline cathartics, & especially those having

diuretic properties seem to be best adapted. The Bitartrate of Potash was a favorite with Dr Bright & has held its place ever since. It is best given largely diluted. Jalap & even Elaterium are given when decided action is required. Combinations are sometimes better than single remedies, especially if much serous effusion be present. This class of of remedies is of extensive application, especially in conjunction with cupping &c

Diuretics. This much used & much abused class of remedies, seem to have a right to enter into the treatment of almost every disease of the Kidney They appear to give but little benefit in this disease Squills, & Digitalis-used & often in combination with Hyosciamus or even Opium. They are of use in removing effusion rather than in obviating its cause.

Sudorifics. The intimate connection between the skin & Kidneys, has led to the employment of means to lighten the labors of the Kidney, by means of the vicarious action of the skin. The employment of them as adjuvants is appropriate - but farther than this little dependence can be placed upon them. Tart. Ant. seems to answer well, especially in acute attacks,

Tonics. In all organic affections tending to undermine the constitution, tonics are useful in some stage. Their effects are not to be relied on so much in this disease as in those attended with a wasting discharge & hectic fever. The anemic state of the patient indicates the use of Iron in some form. The frequent disturbance of digestion, renders the employment of some vegetable bitter stomachic, desirable. This disturbance will often require much care & treatment.

Mercury. The useful application of Mercury in inflammation & especially when it is attended or followed by a deposit of fibrin or even induration, might lead us to infer that it would be useful in this disease, but its use has not so proved. The facility with which salivation is induced & the low state of vitality of the tissues render the occurrence of this event a matter of concern. Considering the benefit to be expected, its employment in the form of Calomel should be confined to the earliest stage, & even then it would be likely to waste the time which ought to be occupied with more active treatment.

There is another preparation, the Bichloride, which seems to be more appropriate, especially to the

chronic stages. This remedy was first introduced by Dr J. M. Smith of the New York Hospital & suggested by the fact of its well known usefulness in chronic inflammations. The results of its employment justify in some degree, the inferences concerning it, but are far from being satisfactory. It should be given in small doses & continued for a long time, carefully watching the gums &c.

Counterirritation. The means afforded by counterirritation are cups, blisters, lotions, frictions &c. These are means of frequent use to relieve pain in the lumbar region; which pains, either from their want of severity or from the state of the patient, forbid the use of more active treatment. The ease with which such remedies are applied - their ordinary harmless operation, their prompt & satisfactory effects = would seem to plead strongly for their use in this disease. Indeed. I do not know any remedy, so simple - so universal in its application, so potent for good, so much to be used & so much abused as the simple 'dry cup.' I do not see why this remedy; a genuine "poor man's plaister"; because it costs nothing = the young Doctor's friend, because

he can be liberal & furnish his medicine; should not in many instances, supplant the old-fashioned blister. & give the Dr the satisfaction of doing something else besides bleeding & purging &c — If properly applied it makes any degree of action from rubefaction up to vesication.

For the application of this remedy, no directions need be given except that it be used ten times as much as at present.

Paracentesis & Acupuncture — For the obstruction of effused serum — when other means fail, or are contra-indicated, & especially when these accumulations prove a serious obstruction to the performance of the great functions of the system — the above operations may be resorted to; the former generally upon the peritoneal cavity & the latter upon the inferior extremities. These operations should not be performed, without valid reasons: as the tendency on the part of the serous surfaces to take on inflammation & of the skin to take on erysipelas — is very great. The case of Rosa McGuire illustrates this. In this case it occurred at an unusual season of the year — in a word

thinly occupied & well ventilated & was not subdued without much care & attention.
The age & constitution of the patient must be regarded. Of course no directions need be given in regard to the operations except that the sequences above named should be carefully guarded or immediately & effectually met. Because the state of vitality in both the tissues mentioned is such as to render these complications exceedingly dangerous.
Bandages may be resorted to, for the sake of promoting absorption & to give support to the limb & if performed well - will be useful - if not evil is to ensue.
Hygiene - In this disease as in most chronic diseases & specially those complicated with disorders of the digestive organs; hygienic treatment forms an important part.
In the first place, attention should be paid to the skin. The connection between the skin & the Kidneys, should lead us to apply those means calculated to maintain the healthy action of the former. So also, an organ

when inflamed should have entire rest both from motion & function. It is well known that attention to collateral circumstances is necessary in order to secure the most favorable action of the medicines employed. The skin should be defended from cold or moisture & malarious air = this is best accomplished by regulating the clothing & avoiding exposure to inclement weather, which has been mentioned as a fruitful source of the disease - as in the case of [illegible] causing the exacerbations as in the case of Anderson. Vapor baths are to be used. Frequently repeated rapid sittings, with frictions on leaving the bath are of advantage. Flannel worn next to the skin, will assist in the same indication. also moderate exercise. The diet ought to be regulated so that the patient may avoid all undue stimulation. It would seem almost needless to say to a person, who has brought on his disease by undue stimulation, that he must abandon his habits, but it is the first requisite. All minor & unnatural articles of diet, such as pepper, mustard &c should be avoided.

It is strange that a man in health, & blessed with a good appetite, need be told that it is stupid to cram his stomach with such a farrago of unnatural articles - but especially when attacked with a disease, which at once tries his habit to entirely disturb his digestive functions. he ought to see the propriety of carefully preserving all his functions in the best condition - Abernethy - is reported to have said - that "the Dr & his mind are getting fattening" - the former of which the Dr can rarely influence, but it is his duty to treat his latter friend - especially when he finds him in this disease - with great incivility. The tendency of this disease to date from exposure to cold the same malaria arising from the same cause: should tempt us to send patients to a warmer climate. It is found that the three great secerning organs of the body viz the lungs, liver & Kidneys have each their own function to fulfill - (the lungs to eliminate carbon - the liver hydrogen & the Kidney - nitrogen) - at each assists the others in some degree. Now if we change the climate of the patient, this assistance is given more

certainly & freely. For instance in Phthisis we send the patient to a warmer climate in order that, by the well known greater activity of the liver, it may relieve the necessity for so much action on the part of the lungs & thus enable nature to repair, if she will, the damage. Similar reasons should guide us in the treatment of this disease. in this instance, taking advantage of the compensation of action on the part of the skin, must need aid. The treatment of the various complications of the brain - serous surfaces &c must be conducted on general therapeutic principles. It is fair to infer - especially when we take into account post-mortem records - that the disease in many instances is much more advanced, than was suspected & thus far more ~~intractable~~.

Sequelae. It has before been remarked that this disease is numerous & varied in its complications & we also find that a great majority of them induce organic disease & that, of an unmanageable nature. In many of these complications it is fair to

Suppose that the Kidney began the diseased action - the induced inflammation of the organ affected, reacted either upon the Kidney or some other important organ. It would seem impossible for any other organ to do so much damage to the other functions, it seems to poison the fountains of life - The principal lesions are found, in the circulating & respiratory systems & serous surfaces - The meninges - pleura - peritoneum & arachnoid membrane in a majority of instances, shew marks of the disease - while the liver, spleen & intestines are generally found healthy. Post mortem researches would seem to indicate that the pleura was most frequently diseased, but we must allow something for the old adhesions so common in this place. Serous effusions are frequently found in the pericardium often marks of recent inflammation - The complication of colitis is common - But the deviations from health within the heart are very common, & shew an intimate & an interesting connection, between this organ & the disease in question.

The most common disease of the heart is hypertrophy, as in the case of Murphy, & not unfrequently valvular disease. The explanation of this effect of the disease is probably sought for correctly in the fact that the composition of the blood is changed & the blood gives less nutrition & more stimulus & poison to the heart itself. This explanation is further confirmed by the fact that hypertrophy of the heart keeps pace with the disease of the Kidney. The pulmonary complications frequently add much to the distress of the patient. I do not recollect to have seen a case where phthisis was present & this is a singlar exception to the general rule, that phthisis is apt to follow when the body is broken by previous disease, as I have seen it in diabetes & other diseases of the Kidney. The liver presents us with fewer complications than we should expect, as habits of intemperance so frequently give rise to this disease, & also to cirrhosis. Indeed to so great an extent do Drs think of the liver & intemperance, that so often as they see the bloated face & the diagnostic of intemperance; they say, "the liver is out of order", & forthwith,

[illegible] to this [illegible] organ which they ignorantly worship! There is reason to believe that there is no organ in the body, which so steadily performs its duties as this same organ. It is one of the first organs, to commence action in fœtal life & one of the last to cease in old ages. It is Nature's great pill-box which is placed at the head of peristaltic motion & uses it's best endeavours to maintain systematic & healthy action every-where below it. I believe this much abused organ is made the 'scape-goat' for a vast amount of medical ignorance especially in diagnosis. To tell a man that "his liver is deranged" is equivalent in medical accuracy, to telling a woman that her "nerves are affected" it is only a more learned mode of expressing ignorance. The therapeutics need not be dwelt [illegible] [illegible] of this [illegible] [illegible] leads us to consider the modes in which death terminates this disease. In many diseases it is important to have clearly in [illegible] the ordinary modes of dying, in order to keep the patient from death [illegible] now in this

disease we find certain modes of death so common that we must bear them in mind & they are such as we should expect. The fact that a majority die with cerebral derangements - Ramon as apoplexy, coma, convulsions - &c. Many die suddenly - The obstructed condition of the lungs, either oedema or serous effusion in the cavity of the pleura - is the immediate cause of death in many instances. Next in frequency to the cerebral derangements, we find inflammatory attacks of serous surfaces, Diarrhea & such exhausting terminations are the lot of some. It is worthy of remark that hardly any die of casual diseases, but die of those sequelae which may fairly be laid to the charge of the Kidney - The age at which a majority die of this disease is an interesting point. It is emphatically a disease of the prime of life. If we inspect records such as are kept at Hospitals we shall find that the highest number of deaths occur between 40 & 50 years of age - next between 30 & 40 + as many happen within the last mentioned period as happen under that age. The youngest age mentioned is death at 8yrs

of age & the oldest at 73.

Prognosis. There are many dark points in the panorama of this disease. As complication after complication pass in review before the Physician he may do much to palliate, but his best exertions can do no more - He is summoned by his patient to stand by & see how Nature can wreck the stoutest constitution, There are occasions when, like young Hercules - she seems to grasp & strangle any degree of violence & virulence. but there are others, when Cleopatra-like, she seems to put the aspic to her own bosom. The patient's hope for cure is small. If he should obtain medical treatment at the inception of the disease, & that treatment should come from an intelligent & energetic attendant; his chances are better; but if, (as in many instances is in the case) he misinterprets or neglects the timely warning of nature, his fate is sealed. There is no doubt but that recoveries are possible, even after organic disease has taken place, but they are rare. It was the remark of the Senior Physician to the New York Hospital; that during his twenty years experience & observation in this disease, (& his observation is unrivalled & his experience

amples. he had not known an instance of recovery.
But the case is not so bad as in that disease of the
uterus, concerning which the able & eloquent author
said, "there is no solace, but in opium & no refuge,
but the grave." Much can be done in palliation,
& improvement of the condition of the patient, his
complications may be promptly met, & by the means
already laid down. he is often put in such a condition,
that he may & often does mistake it for perfect
recovery. in such condition that Chemistry alone
shall shew that he is still a sick man. Although
he may, as is said, "have one foot in the grave" - he
may be rescued "from" putting the other foot in it" for
a long time. Death although he holds a 'mortgage'
on the body will not "foreclose" - for a time - if the
'interest' is promptly settled.
I recollect hearing an eminent Surgeon - who was
drawing towards the close of an industrious, useful &
honored life - say, that if there was anything in his
profession, to make wish to prolong his professional
life - it was to see remedies discovered & applied -
for scrofula & cancer. He said that the

group of the healing art had developed an antidote for the hydra-headed monsters Syphilis & the still more terrible scourge of Small-Pox & he believed, that in due time, the remedies for the diseases first mentioned, would rise in the majesty & magnitude of their power & assume that place in the Materia Medica which their importance entitled them. So also must we wait the time when the spell of this mysterious & fatal disease shall be broken, when its deceptive & energetic strength shall be paralyzed. For this "good time coming" we look, & not without hope - to the Chemist. It has been his constant study, to search into the hidden things of Nature - to learn to think as she thinks - & to do as she does. He has long since left the ignorant & useless mysteries of Alchemy & applied himself with earnestness & vigor to those arts, which render the life of man, so useful & happy. He is now studying his last great problem, "life itself" & he has admitted our profession, to look with him upon Nature as she carries on her manifold movements & to

hold Her clearly & constantly in vision, as She moves through the many labyrinths of disease. He has told us the laws by which She moves in health & has presented us with the pure crystal remedies, to alleviate or reinvigorate her when disordered. He will not leave us, till we arrive at that perfection which no sickness disturbs. Till that time we shall unitedly labor in order that the miseries of mankind may be alleviated & that the disease under consideration, may be enrolled among those whose nature the Physician clearly & fully understands & whose remedy he promptly & successfully applies.

A. M. Priddy.

Cases of Morbus Brightii (selected from observation) illustrative of facts mentioned in the foregoing remarks.

Case I

George Anderson. 33. S. C. Seaman. Patient is of sanguineous temperament & robust habits. Always enjoyed perfect health until March 12. 1849. when he fell from aloft, though a space of 40 ft. & saved himself from striking the deck, by catching & holding fast to a rope - so that he did not strike the deck - From this time he felt a constant pain & weakness across the lumbar region - but it was not sufficient to incapacitate him from labor. During the next fortnight he passed more urine than was usual & had some difficulty in retaining it. The bowels during this time, were regularly moved -

At the end of this time two weeks, he began to pass less urine than usual. At the quantity of urine began to diminish - his face became oedematous & three days after, his scrotum rapidly filled - becoming as large as a child's head. Oedema of the subcutaneous areolar tissue of the

trunk & in two months after- his legs were in the same condition, but no ascites existed during the time- When the anasarca of the trunk came on, he suffered somewhat from dyspnea. His appetite was good- bowels reg. & he slept well. On April 1. he entered the Marines Hospital at Norfolk Va under the care of Dr Balfour, to obtain relief from the "pain in his back & swelling of his body"- The Dr told him that he had "dropsy of the flesh" & examined his urine with Acid Nit & found it loaded with Albumen. so much so that not a dozen drops of clear urine remained in the test tube - His first prescription was Salaps. & Potass Bitart. (quantity &c unknown) & gave Potass Bitart water as a drink - Bowels were freely acted upon three or three times daily. This treatment was continued one week. Next, took pills composed of. Squills, Digitalis & Camphor. = every 4. hours for a fortnight- which produced free cathasis. he had 10 or 12 passages per diem - but with no change in his urine - The oedema would temporarily subside & returned whenever he exercised much. Next. took Cal & Squills - tinct. until mouth became

sore. This medicine produced free catharsis but did not otherwise act. Next. Elaterium ½ gr - ter in die - which dose occasioning nausea, was reduced to ¼ gr. & then 1/8 gr & then gr 1/16 - upon which he continued for a month. Had 15 or 20 watery passages pr diem. All of which treatment did not affect the pain in the back or the urine. Junip Bacc Decoct. continued for one week produced no effect - Patient then "prescribed for himself" taking a mixture of Haarlem Oil - Whiskey - & Horseradish - freely & using the Elaterium once pr diem - From this time he passed more urine & the swelling when reduced had less tendency to return. The legs still remained oe[illegible]tous. Then about the last of June the [illegible] - strong & hearty. the pain in the back much relieved - State of Albumen in the urine not known - He remained on board ship doing duty until Aug 4. becoming no worse. He entered N.Y. Hospital Aug 10. having a "heavy cold" caught on the passage [illegible] which soon disappeared under treatment - & upon mention of his other disease which had been much aggravated by his cold.

he was put under treatment for Albumminuria, by H D Bulkley M.D. Attending Physician. Upon admission, he appeared oedematous, especially in his scrotum, legs & face. His left leg had. upon its inferior & external aspect, - several excoriations which soon became open ulcers, but which soon healed under Lig. Plumb & rollers, In order to correct costiveness which then existed, he took Pil. Hydrarg. but in small quantities. He was then put upon the Acid. Nitric Dilut gtts x ter in die - also Infus Armorac pro re nata - The urine was highly albumminous but the proportion diminished - as also did the swelling of the scrotum & oedema of the legs. The pain in the back diminished & strength increased. - The proportion of albumen diminished from 2/3 down to 1/8. With this exception, he considered himself well & Sep 10. was Discharged as Relieved -

9 Case II.

14. Walter Murphy 45 Ireland Seaman. Had a heavy cold - (which was the result of exposure) last Christmas, At the same time, he had

a pain in the left side near the renal region, which pain lasted for two months, but did notice anything else abnormal - either about his urine or otherwise. In the July following, he was troubled again with this same pain & swelling of his legs - face - scrotum & hands - soon after he had much dyspnea, palpitation of his heart & all this increased upon the least exertion. At this time he felt feeble & unable to attend to his work though he was naturally a man of great strength & endurance. - Was treated six weeks without benefit. - He is now oedematous in the manner above described. - Upon physical examination of the thorax anteriorly, dullness on percussion in the pericardial region extends over a much greater space than natural. The apex of the heart strikes between the 5th & 6th ribs & over 4 inches from the sternum, the impulse is much increased & diffused. Systolic & diastolic bellows sound, most distinct over the aortic valves, the former heard along the course of the aorta & great vessels, limit de diable over the right

carotid, in the supraclavicular region - but not much over the left. Ord CC. ℥i ad reg dol. which relieved the pain in the lumbar region. He was then ord Pv Purgans bis aut ter in die & put upon Hydrarg Bichlor gr 1/8 ter in die - The occasional application of dry cups was resorted to for the relief of pain in the renal region, & his legs were bandaged.

Nov 5. At this time his swellings are gone & his urine which on entrance was 1/3 albumen now has 1/16 - & the spec grav which averaged 1008-9 - now is 1014-15 - Has some dyspnea, but has gained much in strength & at his request is at this date Discharged Relieved. N.B. This patient subsequently entered the N.Y. Hosp. with his second attack, which is very severe, especially the cardiac complication. He is now under treatment.

## Case III (Extracts)

Aug 12. '49 Rosa McGuire 25 Ireland Married. Patient is of good constitution & rather robust habit. First noticed about 12 days since, a swelling of face & about the same time, of feet & soon after ascites followed. Coincident with her first oedema, she had much pain in her back, which she thought was caused by stooping & straining at

[illegible], & at the same time she chilled herself, when in a perspiration. Her urine was scanty & a little bloody. Upon admission, she had much ascites & oedema of inferior extremities & face, & the same pain in the renal region, Pulse slow & hard, tongue red, no appetite & headache. Her urine upon testing was found nearly filled with albumen & she passed only f℥iiij pr diem, of nat spec grav. Skin dry Ord CC ad loc dolori which relieved the pain. H. Cinch Fr C ℥ij Hydrarg Bi Chlor. grs ij M. ℥ß. ter in die.

22nd Patient passed more urine than at any time since her attack. Some diminution in the oedema, Bowels somewhat loose. Discont. Med H. Ammon Nit grs x q-3-h-

27. Passes less water - oedema increasing - feet exceedingly swelled - Ord Feet to be acupunctured, which operation was followed by a gradual discharge of serum, which in a few hours amounted to nearly two Falls. H Inf. Bacc Juniper

28th Erysipelas followed acupunctured, Ord Lot Evap et Opii. H Liq Ammon Acet ℥ß q. 2. h. By active treatment the erysipelas was subdued. Serum still flows from the punctures which are painful. Ascites is the same. H. Acid Nit. Dilut gtts XL Aquae ℥iiij M ℥ß ter in die. Urine now flows more freely f℥xx pr diem -

Sep 20th Patient has suffered from an attack of Dysentery, which reduced the oedema & ascites, but with no other effect & soon after, she was discharged by her request in a condition not improved since entrance. At this time she pass ℥xxiv of urine per diem. Sp. gr. 1010.

N.B. This case occurred at a time when purging could not be tried, without great danger of inducing an attack of the Cholera, then prevalent. This accounts for the slight treatment.

## Case IV.

Nov 20. Conrad Jacques 44. German. Shoemaker. Is of a lymphatic temperament. Was taken six weeks since, with anasarca of the left side of the body. A week after, it came on the right side. & at the same time, he had a sharp pain in the lumbar region & sonae pain in head & neck. These pains lasted more or less severe till the present time, intermitting from 6 to 30 hours. The anasarca was three weeks in spreading over the body. He was able to do work up to his admission into the A.B. Hosp. He used to perspire freely, but has not since his attack. Does not sleep well because of his headache. Appetite poor. At his attacks, thinks

he passed more urine than in health? Pulse 86. Tongue pale & flabby. Skin cold. dirty coloured & chlorotic. His case is subjoined in a tabular form. Most were kept in this form, but the statistics are omitted, as they would occupy much space.

| Date | Quant of Urine pr diem | Spec Grav | Treat. | Proport of Albumen | |
|---|---|---|---|---|---|
| Nov 23 | 1½ pt | 1014 | Hyd Bi Chlor 1/12 gr Bis in die | 1/3 | Extremities bandaged |
| 24 | 2½ | 1015 | | | |
| 25 | 2 | 1016 | | | |
| 26 | 1¼ | 1013 | | | |
| 27 | 2¾ | 1011 | | | |
| 28 | " | 1012 | [illegible] | 1/3 | |
| 29 | 3 | 1014 | | | |
| 30 | 2½ | 1012 | | | |
| Dec 1 | 4 | 105 | 1/8 | | |
| 2 | 2 | 1010 | | 1/4 | |
| 3 | [illegible] | 1016 | | | |
| 4 | 2 | 1013 | | | |
| 5 | [illegible]½ | 1012 | | | |
| 6 | " | 1017 | | | |
| 7 | [illegible]¾ | 1012 | | 1/6 | |
| 8 | 3¾ | 1014 | | | |
| 9 | 3½ | 1015 | | | |
| 10 | 4 | 1015 | | | |
| 11 | 3½ | 1016 &c | | | |

Under this treatment he continued for a short time longer. His oedema disappeared, Headache was relieved & he was discharged as Relieved.

I might cite many other cases which have fallen under my notice, especially one following exposure to cold after [illegible] or exertion but these illustrate the [illegible] causes of the disease.

VIII.

# Erysipelas

By
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# Erysipelas.

Erysipelas is a constitutional affection characterized by diffuse inflammation of the skin, with a disposition to spread widely along the surface of membranes or in the cellular tissue, attended with fever commencing a little before simultaneously with or a little after the local disease makes its appearance. The primary symptoms resemble those which attend other forms of fever during their forming stage — such as languor, aching pains in the limbs and back, general uneasiness, chilliness or rigors alternating with

flushes of heat. These symptoms are succeeded by a frequent pulse, hot and dry skin, furred tongue, thirst, headache, muscular weakness with sometimes nausea and vomiting, swelling and soreness of lymphatics, which are situated nearest the part where the local affection is about to make its appearance; as those of the neck when the disease is about to attack the throat and face or those of the axillae and groins when it is about to appear in the extremities. Usually on the third or fourth day of the fever — though sometimes sooner and others later — there may be seen as small red spots, usually elevated and exceedingly painful to the touch. This is occasionally the first observable (external) symptom. The inflammation gradually extends

from this inflamed portion of the surface in all directions — though often more rapidly in one direction than another, exhibiting as it advances an irregular and elevated margin, which forms a boundary between the healthy and diseased skin. The inflamed part is red often, shining, hot to the hand and generally harder than the surrounding skin. The redness disappears momentarily under pressure of the finger. Sometimes the inflammation gradually rises for three or four days and terminates in desquamation without any apparent effusion; but more commonly about the third or fourth day the cuticle becomes elevated by a serous fluid, forming minute vesicles or blisters from a fraction of an inch in

diameter to those of much greater size. These coalescing run together and produce an extensively blistered surface.

On the fifth or sixth day these vesicles begin to dry and form small crusts or scales which usually fall off or separate about the tenth day leaving the surface covered with a new cuticle.

This is, however, not always its course. It frequently occurs in its more violent forms where instead of simple desquamation of the cuticle the inflammation extends deeply into the surrounding parts ending in suppuration or even in gangrene and sloughing of the cellular tissue.

When suppuration takes place, pus of a healthy appearance escapes through lacerable openings in the skin. In the latter or gangrenous forms

greyish strings of dead cellular membrane are discharged along with a thin, fetid and unhealthy purulent matter.

This form of the disease more commonly appears on the extremities than on any other part of the body, and often extends along the whole limb destroying the cellular and adipose tissue; dissecting the muscles and involving life in great danger.

During the continuance of the Inflammation the fever also continues— the pulse remains full and hard without being very frequent until the Inflammation invades the scalp or brain, producing an asthenic form of fever. Not unfrequently the fever is of a Typhoid grade from the commencement occasioned either by the feeble constitution of the patient, the depraved state of his health at the time of the

attack on the malignant nature of the exciting cause of the disease.
The most prominent symptoms of this form of the complaints are — a small, feeble and frequent pulse, low; muttering delirium, a brown and dry tongue, an irregularly heated surface, a purplish color of the parts affected, with bloody serum in the vesicles — and a strong tendency to sloughing. Diarrhea frequently comes on before the termination of the disease with black fetid stools. — " — "
If the patient survives this he is apt to be worn out by the destruction of parts consequent upon the local affection. — " — "
Causes. Among the numerous causes of Erysipelas mentioned by writers are:— Exposure to Colds, Stimulating Articles of food and drink, violent mental emotions, excessive fatigue and

the sudden suppression of discharges which have become habitual.
But in addition to the causes just enumerated some persons seem to possess a constitutional predisposition to this particular form of disease.
Such persons have frequent attacks of Erysipelas from very slight causes and sometimes without any apparent exciting cause.
There seems also to exist at times a certain unknown state of the atmosphere which favors the production of this disease, so that when this Meteorological state exists the slightest causes give rise to this form of Inflammation.
When this diathesis prevails it is hazardous to bleed, leech or perform any surgical operation.

## Treatment

In the treatment of this disease it is very important that the practitioner

Ascertain as nearly as possible, the Constitution of his patient- his previous habits, mode of living and occupation. If the disease prevails as an Epidemic he is to study its nature, tendency and terminations.

Thus by diligent and careful observation the Physician can alone ascertain the best mode of removing or counteracting the disease.

General Treatment. When the disease occurs in young subjects, of a firm constitution, attended with high, tonic action, Bloodletting is sometimes required; but should be always employed with much discretion on account of the early tendency in the disease to prostration.

Cathartics in the beginning are almost always useful. A full dose of the Sulphate of Magnesia or some one of the purgative salts is generaly pref-

— enable during the early stage of the disease, unless there is torpor of the liver, indicating Mercurials.

After the bowels have been thoroughly opened it will generally be sufficient to procure one or two evacuations daily which should be accomplished by the use of Saline Cathartics during the active febrile excitement; small of Rhubarb in the low or Typhoid state.

Cooling Diaphoretics are also beneficial as the effervescing mixture, Solution of the Acetate or Muriate of Ammonia and the Nitrate of Potassa.

When the Stomach is quiet Tartarized Antimony may be used during the active stage of the fever.

When the circulation is feeble from the commencement or becoming so during the course of the disease a combination of Ipecacuanha aided by the use of Spts. Sulph. Ether, Camphor and

the warm Bath are useful Remedies
When the disease assumes a Typhoid
Character with a gangrenous tendency
in the local affection it is necessary
to support the system by Tonics, —
Stimulants and nutritious Broths
Sulphate of Quinine, opium, the Mineral
Acids, Carbonate of Ammonia and
Wine or Brandy should be given.
When the inflammation recedes and
attacks some internal organ it is
sometimes necessary to bleed.
If the retrocession is attended with —
debility Stimulants — should be employ
-ed and a blister or active rubefacient
applied to the part previously inflamed,
and the whole body immersed in the
Warm Bath.

A variety of local remedies have —
been recommended by different writers
on this disease.

Perhaps the most soothing and least —

dangerous of these, is some bland mucilage, as the Infusion of the Slippery Elm bark, pith of the Sassafras or flaxseed kept constantly applied to the inflamed part. When the inflammation shows a disposition to spread too far, and especially into vital parts, it becomes necessary to arrest its progress. This can usually be accomplished by the Nitrate of Silver or Tincture of Iodine applied near the margin of the inflamed surface. — Allusion to other External applications might be made but as I cannot testify to their efficacy from experience I propose to pass them by.

Dixon S. Hall

IX.

# Pneumonia.

By
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# Pneumonia

In the consideration of this disease, a knowledge of the morbid anatomy of the parts implicated will be necessary, in order that we may fully understand the physical signs, by means of which we can ascertain, almost without the aid of any other symptoms, the extent situation and progress of this affection. The most reliable symptoms of the nature of this disease, the events to which it tends & the remedial treatment required, are pointed out to us by the changes wrought in the pulmonary substance which changes are made known to us by means of auscultation and percussion - Firstly, then a description of the morbid anatomy of the parts implicated in this disease seems necessary — Pneumonia or

inflammation of the parenchymatous substance of the lungs, is divided for convenience of description into three stages - In the first stage, usually called the stage of engorgement, the lung or part of it affected, is partly filled with blood & serum; its colour becomes changed to that of a bluish or venous tint externally; internally of a deeper colour - when pressed between the finger there is more resistance than natural together with slight crepitation - the cohesion of the lung is also diminished, from which it is said to resemble the spleen, hence, the name splenization has been applied to this stage of the disease - The inflammation not being resolved in this stage, the part affected usually becomes solid in the course of six

or seven hours. From this point is dated the commencement of the second stage of the disease, called usually, hepatization of the lung, from the striking resemblance which the deep red colour and granular appearance of the part now bear to the liver. This granular appearance shows itself at the commencement of the second stage and continues through the third. These granules vary in size as the air-cells in which they are moulded vary. Some are 1/80. some 1/8 + some 1/4 of a line in diameter, some round, some oblong &c according to the shape & size of air-cells. The lung at this stage will not yield readily on pressure, and there is no crepitation, the air being excluded from the air-cells by these granules — Throw a piece

of lung in this stage into water and it sinks readily, being about ten times heavier than healthy lung. The inflammation is now at its highest point, and the next stage, that of gray hepatization is merely a softening of the matter effused in the second stage - The matter called pus in the third stage, has been shown, by careful examination to be precisely the same as the granular matter of the second stage, excepting that the blood effused in the second stage has now been partially deprived of its colouring matter; and the third stage is supposed to be absolutely necessary for a cure after the lung has passed into the second stage - In the next stage of the disease the lung, which was before dense solid & impervious, undergoes an

alteration of colour & consistency—
This change is a gradual one, and
is by some called the transition
stage. The lung, which before was
of a uniform red colour assumes
a mottled appearance. Portions of
the lung become of a gray or mar-
bled colour, while others still re-
tain the characteristic red colour
of the second stage. When the colour
has become changed to gray or drab
it is said to have passed into the
third stage. From this point the
changes are towards a restoration
of the part. At this period of the disease
the substance in the cells begins
to soften and a small quantity
of air begins to enter into them.
If you pierce the substance of the
lung it will be filled up with a
milky fluid, and as before stated,
this fluid presents the same micro-

-scopical appearance as the substance contained in the cells in the second stage, excepting that the blood has been deprived of its colouring matter & serum has been effused; and as I believe, this third stage is absolutely necessary for a cure after the lung has passed into the second stage, and this soften-ing is the first step in the curative process. Serum is effused sufficient to float these different substances and they are expectorated. This effusion is disposed of in two ways, viz:- by expectoration & absorption. Physical Signs - In the first stage consolidation is not complete and air enters the air cells - By applying the ear or stethoscope to the chest we get an unnatural respiratory murmur. It is a crepitant rale so called - This rale is probably

produced by the bursting of bubbles caused by the passage of air through cells choked up by effused serum. This râle may be imitated by rubbing a lock of one's own hair between thumb & finger. This râle is best heard at the end of inspiration & more frequently in the lower part of the lungs, as this part is said oftener to be the seat of Pneumonia. If the Pneumonia is duply seated, we must require the patient to take a full inspiration in order to hear the râle

Second Stage. At this stage there is complete consolidation of the diseased part & percussion will give perfect dulness over this part. Now there is no respiratory murmur or crepitant râle, because air is excluded from air-cells. Auscultation will now give you bronchial

or tubular respiration - This is the same sound which we hear when air is blown through any other tube - Why do we have this bronchial respiration in second stage? Simply because the lung is a better conductor of sound now than in the healthy state - The efficient cause of sound or rather of bronchial respiration is really much less in <u>disease</u> than in <u>health</u> of lung, because less air passes through the bronchi - The difference in the two cases is owing to the difference of the conducting media through which sound has to pass - Bronchial respiration is heard first in expiration, because the surface of the lung is compressed by the muscles of respiration and made a better conductor - When patient is convalescing, bronchial respiration ceases

first in inspiration for the same reason - Bronchophony. This is a voice sound heard first over the bronchial tubes. This sound can always be heard in the inter-scapular space & more distinctly on the right side. After consolidation, it can be heard anywhere in the neighborhood of large bronchi - Third Stage. This stage cannot be distinguished from second until consolidation begins to break down when this takes place air begins again to enter the diseased part, the lung becomes a poorer conductor and bronchial respiration ceases. percussion no longer elicits the dull sound and a variety of rales can be heard over all the diseased region - Seat of Pneumonia Pneumonia may affect both lungs or one, i.e. may be double or

single — or it may affect the whole or only a part of a lung or in other words may be partial or general. It is thought to occur more frequently in right lung than left — but in whichever lung it occurs, it more commonly commences in the lower part & extends itself upwards. Bronchitis is said to be always a concomitant of Pneumonia, Pleurisy to some extent, frequently. Circumscribed abscess & Gangrene sometimes, though rarely occur as the effects of Pneumonia — Manner of attack — Pneumonia is generally ushered in by a chill; although sometimes it comes on more slowly as the sequel to some other disease as bronchitis. Chomel says that when there is a well marked chill with signs of inflammation & he is unable to locate it, he assumes that

is Pneumonia. The fever is inflammatory with the characteristic pulse. When the fever is well marked the blood is said to be more changed in this disease than in any other except rheumatism. General Signs The most important symptoms aside from the physical signs, are, pain in one side of the chest dyspnoea, cough, the peculiar expectoration & fever. The pain is generally in exact proportion to the pleurisy which accompanies it. It is most usually felt a little below one of the mammae and is aggravated by pressure, it is most severe at the beginning & ceases before the Pneumonia does in most cases. Dyspnoea or difficulty of breathing is generally in proportion to the extent and severity of the inflammation.

though not always, nevertheless extreme dyspnoea is always a very unfavorable symptom - The cough of Pneumonia gives us no particular information It does not occur in paroxysms, is generally dry at first but finally accompanied by the peculiar expectoration of Pneumonia - When the sputa is viscid semi-transparent and partially aerated, of a yellow or brick dust colour, it is perfectly diagnostic of Pneumonia - This expectoration usually commences on 2d or 3d day of disease and continues throughout its course, gradually changing as the inflammation is subdued & finally coming to resemble more the expectoration of common catarrh - Although this expectoration is perfectly diagnostic when present, still it is many times absent, in which cases we

must be guided by the physical signs taken in connection with the other symptoms. Delirium sometimes occurs in the course of this disease & is an extremely unfavorable symptom. It indicates to us that a large part of the lungs is incapable of performing the requisite changes upon the blood, and that the brain is suffering from its poisonous effects. Causes of Pneumonia Cold and the common causes of other inflammations are also causes of this disease. Coming from warm to a colder climate, the natural changes of the seasons, long continued exertion of the lungs as in blowing a wind instrument or in speaking or reading aloud are probably among the more usual causes of this disease. Fewest cases of Pneumonia occur

in September & most in March, in this climate showing that it is not in the coldest, but the most variable months that this disease is most frequent. Pneumonia causes the death of about one in twenty-two of those dying in Massachusetts, and about one in eleven in New York City - Age has a strong modifying influence in this disease - it occurs more frequently in children & old persons and is more fatal than in those of middle age - Irritation caused by tubercles is a frequent cause of this disease In making out our Prognosis, therefore all these modifying influences, together with the extent & severity of the inflammation actually present, must be taken into consideration - Duration of Pneumonia varies from four days to six weeks - average duration of

fatal cases is placed at nine days, of those not fatal four weeks ——

Treatment of Pneumonia - The remidies mainly to be relied upon in the treatment of this disease are, Blood-letting, Antimony and mercury - of these the greatest reliance is usually placed upon blood-letting - It aims to produce its good effects in two ways - firstly, upon the system, by taking away a part of the fuel upon which this conflagration depends, and secondly, upon the function of the lung itself leaving it less labour to perform, consequently in a condition of comparative rest, which is favorable to it. No particular rule can be given as to the amount of blood to be taken - The patient must be bled from a large orifice, being in an upright posture, until syncope is at hand,

the approach of which will in most cases be indicated by the sense of tightness at the chest being abated, by the dyspnoea & pain being relieved, and by the pulse becoming softer and more compressible - The bleeding should be repeated after four or five hours if pain & dyspnoea & c return - When there is much pain, topical bleeding is a valuable auxiliary to general bleeding - Blood-letting should be resorted to early - after the inflammatory symptoms have been abated by its use, we endeavour to keep the system in this state of prostration by the tartar emetic - The manner of administering this drug, is to commence with a small dose of it combined with a few drops of Tinc Opii, to prevent its passing off by the bowels or causing vomiting - We may commence with ℔ 3 or 1/2 of a grain given once in an hour at first, and

gradually increase this dose as the system becomes tolerant of it, as the expression is - This dose has been increased until patients have taken two grains per hour for some days together with good effects - When by the use of the antimony the dyspnoea and other signs of inflammation have subsided, it may be laid aside; but must be again resumed if any of the symptoms return - By a judicious & seasonable use of blood-letting & antimony as it is probable that most cases of Pneumonia may be cured before the lung has become hepatised — When however the lung has passed into the stage of hepatization, we are taught to place our reliance more upon mercury - and we must give it, in some of its forms so as to bring the system as speedily as

may be under its effects, which will be indicated by the gums being slightly tumid and sore. The manner recommended for producing this effect is by giving equal doses at equal intervals. Say one grain of Calomel ever hour or two grains every two hours combined with opium enough to prevent its from acting upon the bowels. If however the pulse should become frequent & weak, if the extremities should become cold & the features shrunken and if the patients strength appears to be giving way; we ought not to wait for the effect of mercury but resort immediately to cordials & stimulants. Among the other remedies, blistering the chest is considerably relied upon. This measure will be particularly indicated, after the fever has in a great measure subsided

if there still exists some difficulty of expectoration together with some dyspnoea & oppression about the chest. But in the use of blisters we must be careful that we do not resort to them too soon, while there is yet considerable fever, as the irritation produced by them in the immediate vicinity of the diseased organ may aggravate all the symptoms.

Purgatives are not so much relied upon in this as in other inflammations, however a cathartic is generally given at the beginning of the disease and a daily movement of the bowels desired afterwards. This I believe is the outline of the plan of treatment usually adopted in pure Pneumonia as it occurs in vigorous constitutions. Of course the age of the patient and the various complications to which it is liable

will require us to alter this plan of treatment accordingly, that is; the symptoms present in the case we are treating must be our guide for the treatment of that case —
This view of the matter which I have now presented to you, is, I believe, in substance such as I have learned from able Teachers and standard Medical Works, and for which, I cannot claim any originality, excepting in its compilation and mechanical execution — With this acknowledgement, I respectfully submit it to your Kind consideration —

C. Clifford Holcombe —

X.

# Peritonitis.

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# Peritonitis

The Peritoneum is the largest serous membrane in the body. Like the other serous membranes it is a closed sack. It lines the cavity of the abdomen. & is reflected over the various viscera that lie within some being partially & others completely enveloped with it. In a healthy state it has little or no sensibility. It nerves have been traced to it, but the exquisite pain & tenderness that attend it's inflammation show that it is abundantly supplied with them. It is well furnished with vessels also, the existence of which though in health not revealed by the color of their fluids, is yet made evident by the redness of the part when inflamed as well as by the secretion that is constantly taking place into it's cavity.

In structure it resembles cellular tissue & indeed seems little else than condensed cellular membrane. From its vessels there is constantly exuding a serous fluid which after lubricating the parts is taken up by the absorbents and reënters the circulation. In health the quantity of this fluid is small though amply sufficient to answer the end of its secretion. In the natural condition of the parts, this sack is collapsed; its opposite sides lying in contact — the cavity being almost obliterated, though capable whenfully distended of holding many gallons. The Peritoneum is liable to many alterations of function & structure, not a few of which are the results of inflammation. A brief consideration of some of the varieties of inflammation to which it is of the symptoms, progress, morbid anatomy & treatment of each, is all that I propose to myself.

Acute Peritonitis is usually ushered in

by chills & rigors preceded & attended by a sensation of weariness & languor, by pain in the head back and & limbs. Sometimes the chills are wanting or these premonitory symptoms are so slight as to escape the notice of the patient. At the end of an uncertain period, reaction comes on. The skin becomes hot & dry - the pulse frequent, small & corded. There is pain in the head - in short the usual symptoms of fever.

There is pain too of the abdomen - of a pungent lancinating character, which some have likened to that produced by the piercing of a knife. This pain is more or less permanent & general. Commencing not unfrequently in some one portion of the sack, it keeps pace with the inflammation & in the progress of the disease involves the whole membrane. Unlike that which attends colic it does not occur in paroxysms, & unlike that it never tolerates pressure. Even the weight of the clothes is insupportable

The patient cannot stand, for this position throws the intestines upon the peritoneal lining of the anterior & lower part of the abdomen, & at the same time puts the mesentery upon the stretch. He lies uniformly on the back with the knees flexed & turned in toward the abdomen. This posture secures most completely the relaxation of the abdominal muscles, prevents the contact of the clothes & thus obviates pressure upon the inflamed parts within.

The respiration is short hurried & superficial, & performed by the walls of the thorax alone. The diaphragm & abdominal muscles for obvious reasons are not called into action.

There is a troubled and anxious expression of the countenance, which if not peculiar is yet indicative of some serious affection within - a pinched and shrunken state of the face - sharpening & thinning of the features, which is more & more marked as the disease approaches

a fatal termination. This anxiety is height-
ened when pressure is made upon the parts
as in examination. There is a shrinking appre-
hension of suffering often greater than even
the extreme sensitiveness of the membrane will
warrant.
The pain I have said differs from that of colic,
in not tolerating pressure; it differs also from
that which characterizes inflammation of the
stomach & intestines, in being of a more acute
& continuing character & in being attended
in the one case with less irritability of the stom-
ach & and in the other with no desire to
evacuate the bowels.
Indeed the bowels are usually costive. This
seems to be a protective measure. The peristaltic
& vermicular motions of the intestines imply
friction of the inflamed parts on each other,
which cannot but be attended with ex-
treme pain.
Soon after the occurrence of the inflammato-
ry symptoms, swelling & tension of the abdomen

come on. These are caused at first mainly by flatulent distention of the intestines & at a somewhat later period, effusions into the cavity contribute to & increase these effects.

Vomiting more or less obstinate frequently accompanies the progress of the disease. This as is supposed, is caused by the extension of the inflammation from the peritoneum to the muscular & mucous coats of the stomach or perhaps quite as frequently this irritability is generated by sympathy.

Retention of urine or strangury sometimes occurs from a similar communication of inflammation or irritability to the bladder. The functions of the liver are often deranged from the cause.

The bowels I have said are usually torpid: but when enteritis exists either as an independent affection or from a communication of the inflammation, there will be diarrheal & dysenteric symptoms. That the inflammation is sometimes thus communicated to contiguous

tissues admits of no doubt. It is equally certain, that along with the inflammation of the peritoneum there is frequently pleurisy or even pneumonia, having the same origin as the peritonitis or excited by communication, or by sympathy.

The appearance of the tongue in this disease is various. Usually moist & covered with a whitish or yellowish fur, it sometimes is red — at other times it is covered with a brown & dirty coating & is cracked

In the state of the pulse there is less variation. Slow & oppressed during the cold stage, with the reaction it becomes frequent, small & corded - & these characteristics continue during the unchecked progress of the disease, becoming more marked as it approaches a fatal termination

The fever that attends acute peritonitis is not uniformly of an entonic character. Its type will depend, among other things, upon the state of the patient previous to the attack-

the cause & kind of the inflammation & the complications that exist with it In one of a robust & plethoric habit it will in general be attended with ordinary phlegmonous inflammation in other parts — in one weakened by previous disease or of a feeble & delicate constitution — or in whom the inflammation has been caused by epidemic influences or by the perforation & escape into the cavity of the contents of some hollow viscus as the gall, or urinary bladder — the stomach or intestines it will from the first be of an irritative or typhoid character. When Gastro enteritis inflammation exists whether will be of the gastric variety. Under miasmatic influences it may be of a remittent & intermittent character.

There is strictly speaking but one termination of peritoneal inflammation: & that is resolution. This may take place from the 3th to the 20th day. Whether occurring spontaneously or effected by treatment it is

indicated by a gradual diminution of the pain & subsidence of the swelling & an increasing fulness & tightness & retardation of the power & ability in the part of the patient to lie upon the side & change his position - in short by a relaxation of all the troublesome symptoms. Spontaneous resolution is a rare occurrence. More frequently Effusion takes place, which is indicated by some of the symptoms that announce resolution. In addition to these there are chills, a sensation of weight in the part, paleness & sinking of the countenance & coldness of the surface & especially of the extremities. Percussion often affords clear intimation of the presence of an effusion. If the clear sound that was elicited by percussion in the early stage of the disease become dull and heavy & especially if this change be most marked in the depending parts of the cavity, we may be of the presence of a liquid there. Increased tension & resistance, & change in the form of the abdomen indicate the same thing. Fluctuation too

can sometimes be detected. Not unfrequently however from the confining of the fluid in separate compartments it is quite obscure The extreme tenderness of the parts often renders some of these means of diagnosis less applicable to the acute than to the chronic form of the disease

The matters effused are serum, lymph, pus, & sometimes blood - one or more of these constitute the effusion. Its appearance however is various - The serum is sometimes clear, at others turbid & semi purulent, with flakes and shreds of lymph - The lymph at one time becomes organized and constitutes false membranes or bands which unite different parts of the cavity, at another it lies on the parts as a foreign mass - It is often desirable to know whether membranes & partial adhesions have formed This is ascertained by a peculiar sensation that is experienced when the hand is applied to the parts so as to produce motion. It has been likened to

that produced by bending new leather or "passing the wetted finger over a pane of glass."
The serum may be absorbed or it may remain constituting ascites. Pus & lymph are supposed to be rarely absorbed, they remain sources of future inconvenience if the patient survive.
Effusion has been called a termination of inflammation — and the symptoms are milder after its occurrence. The inflammation however is not subdued — it has only received a temporary check &, unless overcome by timely & effective treatment, ends in speedy death or passes into the Chronic form.
Peritonitis sometimes proves fatal by gangrene of the parts. This implies a very violent form of inflammation. It is indicated by a sudden cessation of the pain, increasing frequency & smallness & intermission of the pulse, fetid & involuntary discharges, great collapse of the features.

& by a general sinking of the system.
The duration of this disease is not uniform. Often fatal within a few hours it not unfrequently continues for 3 or 4 weeks. The average duration of it is from 5 to 10 days.
Chronic Peritonitis may be either a primary affection or a sequel of the acute form of the disease. The symptoms that attend the invasion & progress the former are less marked than in acute peritonitis. Instead of the sharp lancinating pain which is so characteristic of active inflammation of the peritoneum there is usually at the commencement of the disease little or no pain. There is tenderness of the abdomen but this at first is inconsiderable & hardly attracts the notice of the patient. Gradually increasing however it finally becomes a marked symptom. A sensation of pricking & a feeling of constriction are ordinary symptoms. This tightness is what is commonly most complained of. The skin

of the abdomen is usually cool & then the be not so great over the trunk munities [illegible] the bowels are usually torpid but sometimes loose and more rarely quite natural. The pulse is a little increased in frequency & the tongue generally covered with a slight coating of white fur. The countenance is usually pale & doughy. There is a gradually increasing wasting of the flesh. These are the usual symptoms that usher in and announce the presence of chronic peritonitis. Rarely marked or unequivocal they are often so slight that the presence of the disease is not even suspected until perhaps it has wrought incurable mischief. The doomed patient after fatiguing exercise may be conscious of a feeling of uneasiness in the abdomen. of a slight soreness when a jar is given to the parts, as in ascending or descending stairs or in leaping from a carriage or when the muscles are put upon the stretch as in defecation.

but he does not dream of any serious dis-
ease being indicated in symptoms so trifling
He does not think of calling in medical aid
& if he do the carelessness of the physician
may quiet his apprehensions & lull him into
fatal security. The bowels are usually cos-
tive & from the relief afforded by cathartics
he supposes whatever inconvenience he feels
arises from constipation & all his efforts are
directed to the relief of that symptom.
Meanwhile the disease is making slow
but sure progress. Serum is effused or coag-
ulable lymph is thrown out. False mem-
branes are formed or bands of partially organ-
ized lymph are stretched across the cavi-
ty. The intestines are glued together often
into one mass. Covered with a thick coat-
ing of lymph they are not free to perform
their proper office. Peristaltic motions are
in a great measure suspended. A torpid
state of the bowels comes on which is well nigh
irremediable. Sometimes a band extends

across a portion of intestine & as the lymph becomes organized constitutes a permanent stricture. Symptoms of strangulated hernia come on & the patient dies soon the obstruction.

Ulceration commencing in the mucous coat of the intestine may perforate the peritoneum & excite acute peritonitis which will prove speedily fatal. Or as the ulceration approaches the peritoneum lymph may be thrown out adhesions of the part to some of the neighboring intestines be effected & the perforation be into that part of the canal. Or pus which has been effused may have a wall of lymph thrown around it & a well defined abscess be formed. This following the general law of abscesses will make its way externally to the surface of the body or into some of those cavities that have an external communication. Fecal matter entering the abscess may gradually make its way into the adhering portion of

of the canal & thus a fistulous communication be established which shall become the ordinary channel for the passage of the intestinal contents to their delivery These perforations & communications often materially shorten the passage - & so much so that food & medicines are often passed within 5 minutes.

Chronic Peritonitis sometimes terminates in ascites, or proves fatal by the kindling up of acute inflammation or the patient sinks under an exhausting diarrhoea - or the powers of the system give away under long disordered nutrition

The majority of those who are affected with chronic peritonitis are of a scrofulous habit. They present the characteristics of that class of persons. The glands of the neck & especially the mesenteric are often simultaneously affected - or traces of scrofula are found in the lungs - spleen liver &c - Of course the inflammation is modified by this constitution

of the patient. It is perfectly characteristic & has very properly been called Serofibrous inflammation. The whole membrane is not unfrequently closely studded with tubercles which vary in size from a pins head to a hazel nut. The lungs too usually contain tubercles in various stages of advancement. Indeed there seems to be a general scrofulous affection of the system of which the peritonitis is only a single manifestation. The local affection does not constitute the disease it is only a symptom.)

An accurate knowledge of the seat & nature of the disease — of the complications that exist — & of the events towards which it naturally tends, will readily suggest the Treatment.

In Acute Peritonitis, as we have seen, a large serous membrane is under violent inflammation — the system generally deeply sympathizes with the affected part —

there is frequently at the same time some disorder of some other part and the inflammation unchecked tends usually to a fatal termination or to a chronic form.

Here first of all the great indication is to reduce the system by a free bleeding. To produce its fullest effect venesection must be employed early before effusions have taken place - false membranes & adhesions have been formed - before any of those changes in the structure of the parts have been wrought - which it is beyond the power of any treatment to remove. At no period however is it to be entirely dispensed with if there be any symptoms of inflammatory excitement

The amount of blood to be drawn will vary with the constitution of the patient & the violence of the symptoms. It should always be enough to relieve the febrile excitement. Ordinarily it will be best to bleed freely from a large orifice. We may

let the blood continue to flow until the pain is relieved or there are signs of approaching syncope. At the end of a few hours we may bleed again if the first bleeding were not fully accomplished in effect. A third & a fourth bleeding are sometimes necessary Some have recommended to keep up the effect of a large bleeding by frequent small ones. The almost uniform small size of the pulse & the great general debility that is frequently present at even the commencement of the disease must not deter us from the use of the lancet. If in any case we are doubtful of the propriety of bleeding we may cautiously open a vein and watch the effect of the flowing of blood – if the pulse becomes fuller, & not unfrequently does as soon as the blood begins to flow & the patient exhibit signs of relief we may be sure that bleeding is indicated and continue to let the blood flow freely.

After sufficient general depletion, the indication

by the safety of the pain and constitutional symptoms we may resort to local applications. The abdomen may be covered with as many leeches as the violence & extent of the inflammation seem to demand. After these have been removed a further flow of blood may be invited by the application of warm fomentations. These will at the same time answer another end — that of soothing the irritation of the part.
Blisters too are frequently of service: they must not however be applied until a decided effect has been produced on the disease by the previous treatment. If applied too early they will fall in with, and aggravate the inflammatory action.
Nor are we to rely on general & local depletion merely in the treatment of this disease. We are to avail ourselves of whatever aid the Art can furnish us with. Happily we are in possession of a remedy that is admirably adapted to the treatment of inflammation

of serous membranes. The administration of calomel combined with opium will constitute an important part of the treatment. The system is to be brought under its influence as speedily as possible and the medicine to be continued until the symptoms are materially improved. Coagulable lymph will not be effused or if effused will undergo under the influence of the calomel absorption, & some of the consequences which result from their deposition be prevented. Adhesions will either not occur or will be less extensive in consequence of this treatment.

The opium will be of service not merely to prevent the calomel from passing off, but to suspend the peristaltic motion of the intestines & by its anodyne & soothing effect to allay the nervous irritation. Indeed diseases have been successfully treated with opium alone. At first sight it may appear strange that opium should be used in such a purpose & yet I think there are cases in the treatment

of which opium should be the main remedy. It should not of course be prescribed in a case of acute peritonitis occurring in a robust or plethoric subject, but inflammation occurring in an enfeebled, irritable & nervous constitution would be relieved by opium alone though even here it would be better to combine Calomel with it. In such a subject the inflammation is not of that sthenic character that attaches to phlegmonous inflammation nor are there those low typhoid symptoms which characterize another set of cases; but nervous irritability is the main element in the disease & thus keeps up the inflammatory action. Now opium by relieving this state takes away the fuel from the fire; and left to the recovering powers of the system the disease subsides - the fire goes out.

Are Cathartics to be employed in this disease? Depletion might be effected by their use. Arterial action be controlled & &

abundant evacuations be produced in them: but it is doubtful whether we should be justified in using them. Active Cathartic implies energetic peristaltic motions — these will increase the pain & keep up the inflammatory action. Mild laxatives however are occasionally to be given. Castor oil or some of the neutral salts may be administered in small doses to relieve the constipation and remove any indigestible or irritating substances that lie in the course of the canal. — If there be great irritability of the stomach so that nothing can be given by the mouth — some laxative enema may be administered. — An injection of warm water or of some demulcent preparation will be of much service in allaying irritation as well as in removing hardened feces that may be impacted in some part of the large intestines. If the inflammation be extended as it sometimes is to the coats of the intestines, the treatment for dysentery

must be conjoined with that for the peri-
toneal inflammation. Small diaphoretic
& alterative doses of ipecacuanha with opium
injections of starch and laudanum &c
will be useful.

Effervescing draughts, Laudanum — or the ap-
plication of leeches or counter irritants to
the epigastrium will be serviceable in check-
ing the vomiting. Generally however this
symptom will subside along with the
others under the general antiphlogistic treat-
ment.

At an advanced period of the disease small
quantities of wine or brandy may be required
to support the sinking powers of the system.
Injections of beef tea with gumine or tinct.
of asafoetida will sometimes be useful. In short
the treatment proper for low typhoid diseases will
be required.

When the inflammation is of a rheumatic
character as it sometimes is, the treatment
must be adapted to this kind of inflammation

Under a course of treatment in general such as I have described - early commenced & faithfully followed the patient will commonly recover. There are cases however in which from the very first the disease withstands all treatment, & proves speedily fatal - and very many more in which Medication is commenced too late to be of any avail.

Time only to hint at the Treatment of Chronic Peritonitis. When the inflammation is not of a scrofulous character a mild antiphlogistic course is ordinarily indicated. Local & sometimes general bloodletting - the exhibition of mercurials to prevent the deposition of lymph, serum &c & to facilitate its absorption - Counter-irritation by friction, by rubefacient & vesicating washes, ointments &c, & by blisters, a succession of small ones being preferable to one large one - warm fomentations with diaphoretics

to allay irritation & equalize the circulation — mercurial inunctions with diuretics to carry off the serum — the proper regulation of the bowels by laxatives & cathartics — these & much more will all all find a place in the treatment required by different cases —

When the inflammation is of the scrofulous variety, the same treatment will in the main be required as for scrofulous inflammation of other parts — Here we must not forget that we have something more than the local affection to contend with — We have a constitutional disease of which the Peritonitis is only one it may be of many manifestations Any treatment that is not adopted from this view of the nature of the affection must be radically wrong. The local disease is not indeed to be neglected the inflammation is to be subdued — particular symptoms are to be met as they arise, but nothing is for one moment to turn us aside from

the general course of treatment we are pursuing. Suppose for one moment the local affection could be removed we have not cured the patient - we have not placed him in a position of security - The disease will show itself somewhere else - or it may be in the same part again As if when a house is all on fire within the closing up a single window would extinguish the flames or prevent them from breaking out some where else. The treatment recommended by this school & which is it seems to me must commend itself to every one's good sense - is a combination of the tonic alterative, & sedative plan of treatment. The Nutritive function is to be restored to, & maintained in its integrity A regular, nutritive, & varied diet is to adopted - The bowels are to be properly regulated - The necessity of pure air is to be insisted on - & the strength of the patient, to be kept up by suitable remedies -

+ Prof. Horner

A long continued exhibition of some of the preparations of iron alternated with each other – of Chlorid of gold which is at present much used in scrofulous diseases – of iodine in some form – of the non salivating preparations of mercury – Counter irritation by small blisters or tartar emetic ointment or a wash of corrosive sublimate – The administration of conium, hyoscyamus, laducarium digitalis, hydrocyanic acid – liniments fomentations anodyne applications, &c – will constitute the treatment proper in such cases –

Under such a course, long continued, a cure, in a large proportion of cases, may be effected. This latter variety of Chronic Peritonitis is however much the more serious disease, & under any treatment too often proves fatal.

XI.

# Relations of Psychology to Medicine.

Thesis

of

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# Psychology and Medicine.

Mental philosophy is by some considered the only philosophy. This may be true, if the processes of Nature are to be understood only when arranged and babbled under scientific formula. Astronomy is simply the philosophy of the stars; Chemistry, the science of affinities as revealed by the investigations of the human mind; and neither is any farther a science than as it is comprehended and defined. Medicine is but a branch of this philosophy, for there is no science but that of the mind, or governing power.

These observations will suffice to show that it is not my object to consider the relations of Psychology to Medicine, as simply those of one branch of mental science to another — that of a part to the whole — but to notice the bearings of mental philosophy upon the practice of medicine. I propose to examine the office & value of Psychology; the necessity of scientific instead of empirical practice in Medicine; thus opening the way for a connected exposition of their reciprocal relations.

Were we to adopt the hypothesis that thought and soul are secreted from the blood by nervous centers, as bile is produced from glandular action, it would not be difficult to understand, in most instances, the causes of the abnormal processes of the human intellect, & all mental derangement would, of course, be traced to the inquiry functional

action of the bodily organs. Psychology, even on this assumption, would still be a science, for the question of Materialism is irrelevant here. Its subject is the mind's phenomena as declared by consciousness. Though life and intellect, and soul be proved to be material, there is still a science of spiritual phenomena. The schoolmen erred in attempting to interpret the essence of spiritual life — the nature of mind; the wiser modern mental philosophers generally seem willing to examine this question when they have put off the corruptible; and prefer to labor for the present, somewhat more upon the utilitarian scheme. It is in vain to try to get beyond the scope of the human faculties. Men have been learned, able, eloquent, in advocating the prerogatives of reason; they have sometimes shed a golden lustre over mind; but from their ignorance of the laws of organization, they have been led to neglect the structure in which the being had its residence, and by means of which alone it becomes capable, in its mundane career, of exhibiting its attributes.

Plunging as they did, into an ocean of subtleties, a bold-fronted materialism has arisen, in direct consequence, the exact counterpart of their abstract and mis-directed philosophy. Gratuitously assuming that in all matter there is a tendency to organization, it seems quite easy to generate the Acarus of Crosse, and as a necessary inference, to expand the monkey to a man.

Instead of taking the more philosophical ground that the Creator formed the design, and then substituted the special laws by which it is to be carried on, for his Creative Energy itself, they assume that matter is impressed with forces and properties and laws which of themselves give origin to the design. They assert that laws can operate though there exist no constituent parts of a design at all. A living being is produced, just as it is, blindly and necessarily.

Perhaps it would be a misrepresentation, to say, that none who hold the doctrine of the materiality of the vital principle, and even the mind itself, admit that law is ever subsequent to a purpose ordered by the Author of Nature and its laws. Many disappose that the soul even is generated according to law; — it is only necessary that the properties of life, which in their view are as much present in the elements as any of their other properties, exhibit themselves in certain conditions according to a predetermination of the Creator; then, not organic, not animal life only is the result, but even that life which links the creature to the life of God. These men, surely believe in human Progress! They look anxiously, and with a heart of hope, for the coming of the not distant day when Chemistry shall reveal the long sought secret of transmuting, not simply metals into gold, but dead material atoms into living flesh and blood. Truly this will be an improvement on the present practice of destroying life to

see it, for if [illegible] to find [illegible] thing to the details of a mind.

"One thinks the soul is air; another fire;
Another blood diffused about the heart;
Another saith the elements conspire,
And to her essence each doth give a part."*

I. These remarks may justify the attempt to define the office of Mental Philosophy and its value to the physician.

1. Its office may be briefly stated. It treats of that which is revealed in consciousness, and considers facts rather than hypotheses, gathering truth by observation and developing it by reflection. It does not ask what is the essence of spiritual existence, but looks at its phenomena, classifying them by Induction.

2. Its uses are as varied as the powers of the mind. Its earnest study makes the thinking man. The physician's duties are practical, requiring close observation, and probably it is in consequence of this fact the opinion is so rife that it is of little service for him to examine the mind carefully. It is nevertheless a lamentable error; just as if Bacon was not a practical man. Psychology is important to the physician as it gives him a distinct conception of the various faculties of his mental constitution. It discloses to him their several relations. Assuming the existence of two distinct worlds — the intellectual and the sensual —

* Sir John Davies.

(or rather trusting to the testimony of Consciousness in this particular) — the one manifested by the laws of the beautiful, the good, the true; the other by laws acting in space and time; the man who looks from effect to cause is the only man who can comprehend the relations of the various departments of the intellectual world to each other, and especially as they bear upon the doctrine which unfolds vitality from inanimate dust and makes sensation the only source of knowledge. A man must think, must understand his own mental nature, if he would avoid becoming a devotee of Locke's sensationalism, as well as guard himself successfully from the ludicrous to Berkeley's spiritualism. Absolute scepticism, resulting on the one hand, as the inevitable consequence of the adoption of the theory of representative ideas; and on the other from the ideal theory, leads to an absolute nihilism, a result to be avoided only by the mind which gives to consciousness supreme judicial authority. It cannot be doubted that ~~it is~~ a very natural tendency of an exclusive attention to the study of Medicine, to the neglect of that higher science of the soul, is to the adoption of sensualistic views; tho' as much as it presupposes the study of the physical sciences, thereby developing a taste for the sensible and a talent of observation, although under proper restrictions forming the very best preparation for the metaphysician. He who is continually in the presence of organic life may very

easily led to confound with these phenomena others which are very different; and this view is made quite obvious when we remember the historical fact that Sensualism, Empiricism and Scepticism have often come from the schools of medicine and natural science. The Chemist is seen in the science of causes; the physiologist is equally earnest in advocating his views of life; the mental philosopher despises both. Here, then, we see how close is the relation between the science of mind and that of the body. An _exclusive_ regard for either makes a warped, one-eyed man. Clearness of vision and a basis for logical, and hence practical, thought are acquired best by the student who has a knowledge of the Constitution of his own mind. He will not be led to refer all mental disorders to bodily derangement alone, nor leave out of view the mutual reaction of the engine, and the steam which keeps it in play.

Again, psychology is useful to him, inasmuch as it bears the relation to the other parts of philosophy, that of a principle to its _applications_, if not to its consequences. (Morals, aesthetics, politics, art, are but applications of Metaphysics.

It is of special value, since the physiologist will be liable to make many blunders in his diagnoses, if he neglects the study of the soul. But there is one, and it is the great reason why the physiologist should thoroughly study the intellectual part of man.

that he may have a rational view of Materialism and its infidel tendencies, and be able, if he have the will, to remove, to some extent, the odium which the reception of this dogma has attached to the Medical profession. Strange it is that the venerated founder of the Sensational scheme did not see that, when carried out to its necessary consequences, it would lead to a fatal Materialism — making body, soul, Deity — all but an aggregation of material atoms, or forces generated thereby. We can have no idea of a spiritual nature which differs in its positive essence materially from our own minds. We enlarge the boundaries of our own spirit, so to speak, and thus reason from our nature to the Divine. Let it be proved then, that we are all matter, and Deity becomes nothing but a Force! Surely, Locke, saw not so far as this, when he said that "a Chemist will reduce Divinity to the maxims of his Laboratory, explain morality by Sal, Sulphur, and Mercury, and allegorize the Scripture itself and the Sacred mysteries thereof, into the Philosopher's Stone". * Here is a demand for Physicians who will take rational views of mind; who do not boldly affirm or deny what is incapable of demonstration. Such a man says with Newton; Hypotheses non fingo: and though following the spirit of the Inductive Philosophy, still may believe and declare that even if Experience be

* Essay on the Human Understanding.

counting — something may still be discerned in the sense, the conscience, the understanding which becomes, at least, the occasional cause of true and definite knowledge. The eye does not see, nor the ear hear; but the sensorium commune gathers thereby materials for the operation of that spiritual power of which this is but the instrument.

There is work, then, for the physiologist to do; but he must not forget the testimony of consciousness. He only can demonstrate the properties and laws of life — life not dependent on atoms, but the breath of God.

II. We come now to consider the importance of rendering the practice of medicine scientific instead of empirical.

Some think that a habit of observation is enough to make the skillful physician. Theory, they tell us, is good for nothing. Just as if a broken-down steam engine could be repaired as well by the man who knows simply how to oil it in a state of health, as by him who understands the principles by which it is ~~kept~~ capable of motion.

These men think they can do without any theoretical basis but they seem to be ignorant that "every human action, even the most mechanical, rests upon, and ultimately requires principles." "Practical tact" is said to be worth more than all the theories. Ignorance is ever assuming; it thinks it knows

right into a mystery, and sees straight-even with the pit of the stomach. It is bold; and boldness is held to be a mark of superiority ability; as if the bullying pugilist were braver than than the patriot whose bosom is bared for "God and Liberty".

Doubtless this circumstance is what has thrown so much discredit upon the Medical profession. Self-confident pill-venders and even regular practitioners who dose for symptoms instead of looking at the cause, the nature, the real seat of disease; these are the men who are apt to decry with the multitude all legitimate speculations and theories in Medicine. They who live on the breath of an ignorant & gaping crowd, who feed on husks rather than labor to secure the good opinion of the enlightened few, will of course ever continue to despise logical reasoning and exalt their own vast experience!

It would be well for such to listen a moment to Schiller — a clarum et venerabile nomen — and not not unjustly celebrated for his acuteness and wisdom:—

"A physician whose horizon is bounded by an historical knowledge of the human machine, and who can only distinguish terminologically and locally the coarser wheels of this piece of intellectual clock-work, may perhaps be idolized by the mob; but he never will raise the Hippocratic art above the narrow sphere of a mere bread-earning craft."

Physicians who think will be respected in the time of need. We hear the lectures of Professors, not simply to get the result of their own experience, but that we may learn ourselves to reason from effect to cause, from symptoms to a radical cure.

Pathology and Therapeutics are branches having the most immediate relation to Physiology, inasmuch as successful diagnosis and treatment are impossible only by an acquaintance with the science of life, which implies a knowledge of the laws of organization. The only mode of rendering the science of Medicine really a science is to establish it on correct principles — to found it on the doctrine of a vital principle; for to rear a structure on the shifting sand. Symptomatology is Nonchalogy. It is only from an acquaintance with structure and function we can come to satisfactory solutions of those physiological problems which continually occur in reference to the modus operandi of particular medicines. We may have theories with regard to the causes and supporters of life which shall influence our whole course of practice. Asiatic Theology or metaphysics will direct our interpretations. Humoralism, Solidism and Vitalism are different systems we can well be conceived, and for a thinking man to adopt either exclusively at the present day, would be as wonderful as his transmigration into the system of dilution, or even the veritable water-cure itself.

Presuming the doctrine of spontaneous generation to be true, a man must leave out of view the vital force as acting independently of matter — upon rather in subjection to it, — and consider it as an inherent property of matter. The vis medicatrix naturae is to such an one the vis that lies in the sand-grain. He jumps from the only true basis of rational medicine — that ~~doctrine of~~ Law on which the properties act even when undisturbed — the tendency to return to their normal condition. He forgets that the physician should ever rest his hopes of cure upon the recuperative powers of nature, and that he is simply to put her in a state to work unobstructedly; and that

"When Nature cannot work, th'effect gart is void,
For Physic can but mend our crazy state,
Patch an old building, not a new create."

If the vis vitae be a chemical compound, is there in reality anything of a scientific character in the ordinary practice of medicine? Is it not entirely empirical? And who will admit this? A mere chemical product is as lifeless as the atoms which form it, and without this vital force all medicines must act chemically or mechanically: they destroy ~~instead of~~ not create. But on the supposition — nay, upon the fact of the existence of this inherent vital force, a principle superadded to matter, we may without difficulty comprehend the reason why not only remedial agents, but morbific causes, are so various in their operation,

Temperament and Constitution do not, as some suppose, depend upon the special development of particular organs, though this is true with respect to some of the vicissitudes of age. They are transmissible, like the sins of parents, and are inherent in the organic systems as such. Temperament, then, acquired or innate is owing to the affection of the vital constitution by slowly operating causes, and this effect is analagous to that produced upon a Chinese by the use of opium. Every system of medical practice which fails to recognize the peculiarities of individual Constitution must be empirical. Every system which lays down absolute rules for learning these peculiarities is not less so;- we want general laws, and the man fully-unfolded: he will read the lessons of Nature and apply her instructions to practice. He will notice the influence of temperament, sex, age, race, nation, occupation and condition, education, natural capacity, & habit;- he sees that nothing is to be viewed partially, that he must not only understand the more general laws of life, but apply them to all the foregoing circumstances, individualizing them to all that call for assistance by the exercise of his own independent judgment, enlightened by a thorough perusal of the works of philosophic physicians.

The sanguine have active and violent diseases; remedial agents must here be prompt and energetic. The melancholic are more slowly affected, for sensibility and irritability in them are dull. The Choleric

hold a medium course, while the Phlegmatic of whom it is said,

"Fat holds ideas by the legs and wings,"

are seldom disturbed by the mind and its passions, and when diseased require great moderation in their treatment. The Nervous are all nerve, and are to be managed accordingly.

Body and mind are linked into unity which yet is a duality; and while mental disorders often yield to pharmaceutical remedies, so equally are bodily ailings often removed by moral treatment. And in no department is there needed more men of "plain, roundabout common sense" with well furnished intellects than in that which discusses the relations of soul and body in the production & relief of mania. No quackery will answer here: science is needed, and half-disciplined minds who look not below the surface and scout at scientific treatment, can never succeed in practicing with the pitiable insane.

III. Noticing thus the two sciences before us, their relations to each other become more manifest.

Man is the link which connects the two worlds of matter and mind. In him alone is creation solvable. The intellectual is the counterpart of the sensual; still this duality in unity is a mystery to man. The mind may be satisfied if it sees why it cannot understand the mystery. The imponderable agents, perhaps, are material, but we do not see it proved, and can give a reason why their nature is not

to be at present understood. Their phenomena cannot be compared with other phenomena which are comprehended. We may warm ourself at a fire without understanding the nature of caloric. We may read by the sun's light; yet we have not explained the nature of the union between light and heat. It is said that "we cannot comprehend a product before we do its factors." * This is true, perhaps, if we would explain, but we may make a statement of what falls under our observation, and is confirmed by consciousness. This is enough for what is sought is a knowledge of the reciprocal action of body and soul. Here only is there a basis for a doctrine of mental disease which can be satisfactory, consisting simply in a disturbance of these two principles in their mutual relation. Concrete states are as much to be studied as organic processes. Philosophically the metaphysical study of mind and the physical study of matter are distinct, yet meeting in the final results.

1. These relations are important in reference to the treatment of mania in its many varied forms. A scientific treatment of insanity implies a knowledge of the physiology of the nervous system and the philosophy of mind. Man's higher nature is revealed in his exalted nervous structure. Its functions are beginning to be understood, but no mere materialist can comprehend them. Every stimulus of an organic fibre becomes a stimulus to every other point. Hope, fear, will — all the passions of the

* Ernest "Kritik der Hegelschen Psychologie."

soul are as much stimuli to the nerves as external irritants. We are a bundle of sensibilities, and to unravel the web of our nervous texture is a work of thought. Whatever acts upon the corporeal, affects also the mental constitution, and vice versa. Nitre and digitalis change cheerfulness into low spirits; antimony relieves the oppression and restores the cheerful mood. Dyspepsia renders a man ill-humored, gloomy and irritable. Joy and grief sometimes cause a suspension of the powers of life. Rage poisons the saliva; the hair rises erect from fright; terror makes the soul leap from its tenement. It is wonderful that the destruction of a nerve of common sensation in a part destroys also that of special sensation. It would be absurd to suppose that Sir Charles Bell, Richat, and Marshall Hall have made no discoveries which have an important bearing on the administration of medicinal agents. But no physician can appreciate them justly who does not regard the mind as holding a distinct office, and wielding the sceptre eventually over the body.

Whatever may be the cause of the greater prevalence of insanity at this day than at any former period, the fact is undoubted. If it is owing to a defect in the systems of physical and mental education, who but the enlightened physician is competent to suggest improvements. Remembering that man's organism cannot be understood without reference to the higher destination of his spiritual nature, inasmuch as the idea of an organism in general is con-

pretended only in relation to the object to which all its parts are subservient, he best understands that organism, and is therefore bestable to push forward these examinations of the present system of mental training which shall advance the physical, intellectual and moral interests of men. He will see that Education is both the poison and the antidote. Who else shall judge of the question of freedom in case of alledged crime?

It is not a small work which has already been done by such men as Drs. Brigham and Woodward.*

2. These relations when understood will redeem the Science of Medicine from the reproach of leaning to materialism, making mind a slave instead of a sovereign.

Seeing clearly that Liebig's theory of Combustion which declares that "the only known ultimate cause of vital force, either in animals or plants, is a chemical process," conflicts with the fact that the entire tendency of physical and chemical forces with which matter is impressed is to "destroy and not to create and improve," the enlightened physician is to show by physiological proofs that organization is the effect not of a vitality inherent in the elements, but of a vital principle superadded to, and independent of, the component parts of inorganic matter. Chemical and physical agents are foes, not friends, to life. Rather let us look at

* Just died. The sweet remembrance of the just
Shall blossom when they sleep in dust."

the ganglia, as a galvanic battery, not generating, but developing, this mysterious, and God-proving principle. It follows from a conspicuous demonstration of Cousin that if the properties of life do exist in the material elements, so that they are capable of organizing themselves into living beings, then the doctrine of spontaneity is obliged to provide for a development of the reasoning and instinctive powers in a manner corresponding with that of the general organization. To that it is an irresistible conclusion that the soul and the instinct have a true existence, in the elements of matter, as much as do the properties of life — a necessary inference from this view — or that the manifestations of the thinking and instinctive powers are simply results of certain changes succeeding the organization of the elements by a physical necessity.

The great question in Natural Science has long been, — what is Life? If there is no proof that matter is dead, till an independent vital force awakes it into organic life, it must follow that so long as these elements have existed, organized, vegetable, yes, animal life, has existed; and in spite of any argument in nature to the contrary life, not only animal, but spiritual, human life has been waxing and waning on the globe from Eternity! Beautiful confirmation of the Hindoo doctrine of Transmigration by the revelations of the nineteenth century!

The physiologist has here a noble, a divine work to do, to rescue

God from the charge of creating an absurdity. Let it come to this, and men will begin to see that it is wisdom to admit the doctrine, only an instinct, but of a suspended force, which gives to inert material atoms the divine significance they bear when organized for the indwelling of a spirit kindred to divinity. Either this doctrine of Organic vitality in matter is false, which confirms Buffon's absurd theory that man is an aggregation of animalcules; or the Revelations of Geology are the "baseless fabric of a vision". Which is the more probable, the doubter may judge. The latter science declares that there must have been ages when the world was not only ruled by "Chaos and Old Night," but rolled on, one sea of elemental fire. Still here was matter, but where was life? Let it be shown why the brain secretes thought, and let it be proved that a chemical change — an inherent electric affinity — can produce any other than a purely chemical product, and then these vaunted theories of spontaneous generation, secretion, and Combustion will live triumphant, though all the vitalists of Christendom conspire to declare their absurdities. But until this day arrives, it is demanded of the scientific man — the physiologist especially — that he advocate the necessity of an independent, sovereign vital power, to secure vegetable and animal organization. It is for him to deny, until not only from analogy, but from actual experiment it is indisputably proved that

the living forms arise from a natural tendency in matter to organization. He is to hold that there are sufficient proofs in the physiology of man that this is a baseless assumption, and especially while it stands recorded in the "Book of Books" that "the Lord God made man of the dust of the ground, and breathed into his nostrils the breath of life,* and man became a living soul."

Finally, An understanding of these relations is important as it will lead the physician to regard not only the mutual influence of body and mind, in producing disease and governing the operation of remedial agents, but also make him feel his office as deeply responsible both to his patients and to God. Thus too will he be encouraged from his knowledge of the relation of the material to the spiritual, to labor with the Roman sage that men approach the gods in nothing more than in their efforts to give the suffering salvation.†

Yale College, Jan. 16, 1856.

† "Homines ad Deos nulla re propius accedunt, quam salutem hominibus dando." Cicero.

* Ha'yim, lives (Heb.)

XII.

# Diet.

By
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Dict_

A celebrated English Philosopher remarks "that man acts more from habit than reflection" which is in one sense equivalent to the old Proverb "Every man for himself" – The Politician who in his zeal for the dear people has not forgot to secure an advantage more substantial than fame – will when asked to define his position, retort with the utmost coolness "Every man for himself" –

The Tradesman who with a conscience seared by the ~~irresistible~~ love of gain – gives short measure – light weight – and scanty change – is quieted in his questionable honesty by the recollection of this time-honored Phrase "Every man for himself" –

The Cachectic patient who pelulently charges the Practitioner with robbing him both of health and purse, or the unfortunate client that remonstrates with the Lawyer who eats the oyster and throws him the shell. is answered with dignified complaisance – perfectly right

"Quisque Sibi" "Every one for himself" –
And thus in every walk of life from the Statesman
to the mendicant illustrations of this maxim
are to be found. The lisp of Infancy & the
trembling articulation of age both give utterance
to its truth – But in nothing do men more
uniformly exemplify it, than in the servile
gratification of their appetites. Man should
ever be the Master instead of the Servant of his
propensities – the ruler of, rather than the obsequious
minister to, his imperious stomach – Three regular
meals a day, should content a judicious observer of
health without giving in excesses at unreasonable
hours as the morbid appetite may crave
I do not mean to affirm that good living is
injurious – but that Gormandizing is the generator
of that most serious disease Dyspepsia –
This disease with all its attendant ills is making
rapid inroads upon the human family.
And amid the diversity of opinion concerning rules
and regulations of Diet – & in a day of puffed
Nostrums and Pills, it may not be amiss to inquire

of there are no grounds against its prevalence and no light to be thrown upon its origin -

Some of our Transatlantic brethren gravely assert that it originated in Boston, a place far famed alike for its notions and for its lovers of Fat Pork and Roast Turkey. Others maintain that it existed prior to the dark ages, and was cured by charms and amulets

If the lean kine of Pharaoh, or Cassius with his hungry look were not of this class, I still incline to the opinion that it must have existed at a very early period. The habit is quite too common among men of imputing every evil to the degeneracy of the age. Thus some Pathologists assert that Nymomania is a disease of the nineteenth century. not reflecting that the malady of Nebuchadnezzar was a well marked case of Nymomania under the influence of which that King fancied himself an Ox and went into the fields to graze. It was a divine infliction for his wickedness. It is true and an expositor of the Scriptures has called it by the appropriate name of Lycanthropy. The symptoms of Dyspepsia will not be treated of in this Thesis as they do not belong to

our subject. It is well known that the Stomach
assisted by the gastric juice is the chief organ of
digestion and that its average capacity without
distention is not more than three pints. The trouble-
ful Theory of the process of digestion is to long to be
entered upon. And for the present purpose it is only
necessary to state that the principal part of this process
is performed by the means of the solvent powers
of the gastric juice. supposed to be secreted
during mastication and thrown off from the coats
of the Stomach by the stimulus of the food.
In a healthy individual it is found to exist
proportionally to the wants of the system —
The undue disturbance of this secretion is the "fons et
origo" of Dyspepsia, and the causes of this disturbance
may be considered as Physical and Mental.

Healthy digestion does not depend so much
upon the quality as quantity of food and the manner
in which it is taken. It is perfectly preposterous
to say that man should live upon one article of diet
to the exclusion of all others. And if any one claims
that the particular regimen which he follows is that best

adapted to the nutriment of the human body. The question at once arises whether God intended him to dictate a rule or system for all to follow. Individuals differ so entirely from each other that it is in vain to attempt the construction of an universal standard. Although it is true that we are so constituted as to exist upon almost any food, experience teaches as well as the form and structure of our organs, that vigorous health of mind and body are best promoted by a mixed diet. The different parts of the human frame cannot obtain their nourishment and perfection from one and the same substance. Thus, supposing it possible for a man to exist on Fat alone, he would become a huge mountain of adeps without possessing a single muscular fibre to move his unwieldy body—

By repeated experiments it has been proved that the stomach in health is governed by laws of order and regularity & that when these laws are transgressed its functions are impaired and its offices imperfectly performed. These laws are altogether broken in by eating at any and every

hour of the Night & of the day. and the consequences of their violation are evinced in the continued debility and the frequent pains and aches of the Dyspeptic. If this habit is pernicious to the healthy so also is that of dosing at irregular periods with Broths and Gruels. Those suffering, in an acute disease would weaken the constitution of a man in health and it is certain to shorten the days of the invalid.

Overdistention of the stomach is an exciting cause of Dyspepsia. Supposing that it is capable of digesting 16 ounces of food at a time it is evident that 20 ounces taken will overdistention results. Some of the food remains partly or wholly undigested and for a longer period than is compatible with the healthy state of the viscera or all functions. To avoid eating too much food at a meal the first feeling of satiety should be noticed. At that moment relish for food seems to cease, but if eating is persisted in the uneasy sensations which it produces may be mistaken for appetite and overdistention follows as a matter of course. The dietetic rule of Dr Franklin was a good one. Always to rise from the table with an appetite.

The occupation and business habits of an individual should govern the quantity and quality of his food
The man of sedentary and inactive life cannot with impunity take as much food or the same food as the hard working former whose system is invigorated by healthful exercise
Time and season also should influence the quantity of Diet. Eight hours in 24 is abundant for any man to sleep. and he who in winter retires at 8 breakfast at 9. dines at 1. and eats again at 6. who hugs the stove all day. talks politics and scandal in preference to taking free exercise in the open air is surely in danger of Dyspepsia. if he does not diminish the quantity of his food.
The habitual late riser should trouble the butcher but for little meat and fast in proportion as he sleeps more than Nature requires should be absent from the dishes of a plentiful table. Those who live on high seasoned food and take but little out door exercise in Winter may imagine that they are laying up a store of vital energies for the time when they shall be most required but they mistake for though the period may be delayed the hour will come when

Nature in countless ways will mark her displeasure of their Epicurean propensities. I have intimated that a plain simple diet is preferable to any other and in proof of this point I might refer to the early records of mankind. In the 18th Chapter of Genesis we find a brief account of the repast which Abraham provided for the three Angels when they visited him in the plains of Mamre. The Holy Record states that when he saw them he ran and welcomed them with all the signs of primitive hospitality. And when he had thus welcomed them he hastened to Sarah his wife and bade her "Make ready quickly three measures of fine meal, knead it and make cakes upon the hearth". While he ran unto the herd and fetched a calf tender and good and gave it unto a young man and he hastened and dressed it." This with the addition of Butter and milk. Abraham set before the Angels to eat. Again in the 19th Chapter of Genesis when Lot entertained two Angels. it is said that "Lot made a feast and did bake unleavened bread, and they did eat". These feasts for angels so simple in their preparation would be considered but poor fare

for men in modern times. In the Iliad and Odyssey of Homer we meet with many accounts of like simplicity

Proofs of the advantage of simple diet so far as longevity is concerned are found in our common poor houses. It is often remarked that paupers live to a very great age, that old and rickety constitutions patched up while more tasked, are recruited under a plain and systematic fare. They thrive wonderfully upon the scanty charge and last long to the exceeding disappointment of the lowest bidder —

Eating hastily is almost as hurtful as eating intemperately The appetite subsides only in proportion as the gastric juice becomes mixed with the food and as it were neutralized by it. When one eats rapidly the food is imperfectly masticated and insalivated. which is a very important process for it to undergo before it reaches the stomach. Time is not given for a due admixture of it with the gastric secretion and the sensation of hunger continues so that eating is not desisted from until the stomach is overdistended. On the contrary when the food is duly ~~masticated~~ comminuted by mastication and

insalivation the gastric fluid acts on its minutest particles and the appetite abates before this distended effect follows—

A cheerful state of mind at all times and especially at the time of eating is greatly to be desired. An eminent Physician observes that people should never eat who is ill humor for it paralizes the stomach brings on a torpor of the feelings and disposes to melancholy and low spirits.

Therefore the Italians have an excellent custom for they at the time of their repasts take great delight in listening to the melodious warbling of birds or the enlivening strains of the Viol—

There are many other habits operating in favor of Indigestion which cannot be considered in this essay— Nor does it belong to our subject to look very closely at the mental causes of Dyspepsia. For when the the mind is disordered the whole animal system is deranged. One evident cause however we will mention and that is the fear of becoming Dyspeptic. It is very unfortunate for some persons to know that they have a stomach

for although they cannot for the life of them tell what sort of a thing it is or where it is situated. yet defer every ache or pain. especially if they have read any work on Dyspepsia. to that organ. and by their constant anxiety bring on Melancholia. Dyspepsia & perhaps Phthisis.

I once knew a man, (you could not call him "mens sana in sano corpore"). but he was a man who after reading Halsted, found it necessary to go to the springs for his health and resort to baskets of Pills for imaginary complaints which in time became real difficulties. Halsted on Dyspepsia and Grahams Lectures. perhaps have made more Dyspeptics than those Physicians ever cured or could cure were their practice as successful as Esculapeans or their age equal to that of Methuselah. The manner in which the minds of people are wrought upon by publications coming either from extreme Regulars or assuming quacks is painfully witnessed every day. But I will only add that if mankind in general were less susceptible of imposition — if they were sometimes ignorant of their own

ills and organization—if they would eat but three regular meals a day and take with moderation and slowness varieties of animal and vegitable food. There would be less employment for the honorable gentlemen here present and for their brethren of the Profession.

W. C. Matthews.

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XIII.

# Phthisis.

By

George Hammond Rogers,
of Colchester,
Candidate for the Degree of Doctor in Medicine.

Gentlemen of the Medical Board of Examiners.

In accordance with the Statute of the State of Connecticut, and the requirments of the Medical department of Yale College, in relation to those persons who present themselves as candidates for the degree of M.D, that they present a dissertation upon some subject connected with the medical science, I do cheerfully acquiesce, by first noticing briefly the requirment of those who have by a long and steady application to the study of the various branches of medicine, recieved that honorary title, then proceed to the diagnosis, prognosis, and treatment of that most prevalent, and lamentable disease of the lungs, which is well known by the community, under the titles of Pulmonary Consumption and Tubercular Phthisis.---
The Physician, after acquiring a medical knowledge in regard to the art of discriminating, and treating the various diseases which prevail among us, is expected to have at his command a list of medicines, the—

administration and application of which, may be not only a relief, but a comfort and blessing, to suffering humanity, in the cure of diseases.----------
But, if we have the medicines, without a medical knowledge how to administer them, I fear they would avail us but little.---------

When we are called to prescribe for a person labouring under disease, we are first, to take into serious consideration the nature of the complaint, investigate the disease and the indications, then apply our remedies according to what we think the symptoms demand; and if the medicines do not have the anticipated effect, we should have recourse to others; and if we are foiled in the treatment proposed by our investigations, from the various authors, I think duty obliges us to seek such medicines for the complaint as we think proper, and when we find a set of indications answered by our remedies, we can -

prescribe the same again when opportunity occurs, until we are convinced that it will do to establish the same as a just and proper treatment.----------

I think there is no propriety in adhereing to one author's system, without giving others a trial.--- When we prescribe for a symptom, or a set of symptoms, and the medicines fail of releiving the patient, we ought, in reason, to give other medicines a trial, and if we cannot by our various endeavours relieve the patient, it is right, reasonable, and just, and our duty, indispensibly, to request the counsel of those who have been long in the practice of medicine, and regular Physicians.----------

As we are all subject to error, and very much prone to imperfection, and so often is it the case, that men of great minds are foiled in their various professions, even in treating diseases; then how necessary it is to call for counsel, in this our time of trouble; for the best, and wisest, of all professions, can look back, and

bring to mind repeated instances of false judgement. ---

In digression from the road which all regular practitioners of the present age are in, must occasion much inconvenience, and agitation of mind ---

Ever pleased, and deeply prejudiced are mankind with what they are accustomed, and ready at all times, to advocate their favorite notions, and condemn all syftems which interfere with their own common observation demonstrably proves. ---

The innovators of the medical profession, from the days of Hippocrates, have been the subjects of censure, and severe criticism; but, wherein they have expunged error, in the introduction of something new, they have withstood the tempest of oppression, and gained a victory. ---

But the field is yet open for improvement, as perfection can never be realized by human nature in regard to this point; system must succeed system, and mankind die at last. ---

With these few brief introductory remarks, I proceed to the diagnosis, prognosis, and treatment, of Pulmonary Consumption or Tubercular Phthisis. The causes which predispose to this disease are very numerous; the following are, however, the most general.----------

Hereditary disposition: particular formation of the body, obvious by a long neck, prominent shoulders, and narrow chest; scrofulous diathisis, indicated by a fine clear skin, large veins, a weak voice, and great sensibility; also certain diseases which prostrate the strength for a length of time, and sometimes terminate in Phthisis, which are as follows.----------

Syphilis, Small Pox, Measles, Hooping Cough, &c,.

Also, particular employments, which continually expose the lungs to become seriously affected, by inhaling fine particles of the substance which they may may be engaged in work upon; such as, Stone, Marble, Brass, &c.----------

There are various other causes which predispose to Phthisis, which are, violent expersions of the body,

passions, or affections of the mind, as grief, disappointment, close application to study without sufficient exercise, the body curved in such a position as to compress the lungs, which after a length of time, causes the inspirations to become short and frequent, and in this way bring on weakness, and disease of most of the animal functions, the lungs in particular.--- Also, the use of strong liquors to excess, great evacuations, as diarrhoea, diabetes, immoderate discharge of the menstrual flux &c.---------- It is probable that very many instances of Phthisis, are produced by the burning of coal in close stoves; For the air which is deprived of a portion of its necessary quality, before it enters the lungs, the capillary vessels become fringed, and after a while extremely diseased, and for lack of rarefaction of the atmosphere in the region of the lower extremities, the feet become uncomfortably cold, and the circulation of the blood very sluggish, while the action of the heart is quickened, and its contents urged into the

pulmonary parts with much vigor. ----------
It is a fact, that coldness of the feet, and going into a refrigerated condition of the air, while quite warm, or leaving heated apartments and exposing the system to damp, cold, stormy, or evening weather, without a proper security, by additional garments, must obstruct perspiration, and of course produce (produces) an effect upon the organs of respiration. ----------
Some writers seem to think, the more immediate, or occasional causes of Phthisis are, haemoptysis, pneumonic inflamation, proceeding to suppuration, catarrh, asthma, or tubercles, of which, the last in my opinion, is by far the most general; For when it arises from tubercles, it more commonly begins, with short dry Cough, which after a length of time becomes habitual, which nothing is expectorated for some length of time, except a frothy mucus which doubtless proceeds from the fauces. ----------
The breathing is commonly at the same time somewhat impeded, and as a general thing the least motion of the

body, will cause it to be much hurried, and most of the time a tightness, or sense of straitness with oppression about the chest is experienced; ------

The appetite generally very poor, which of course would after a length of time, cause the body to become lean, and languor, dejection of spirits seem at this time to prevail. ----------

In this situation, the patient lingers along perhaps for months, during this time however, he is affected with slight colds, which would naturally cause the cough to become more troublesome and severe, particularly in the night, which is relieved in a measure, towards morning by expectoration. ----

The substance, or matter expectorated, becomes more viscid and opaque, and generally assumes a greenish color, of a purulent appearance, and often streaked with blood. ----------

The breathing at length becomes more difficult, and the emaciation, and weakness, seem to increase more and more, which, after a length of time, or at a more advanced period of the disease, a pain makes its appearance in -

one of the sides, more commonly the left, and prevails to such an extent, as to prevent the patients lying easily on that side; or perhaps, may happen more frequently in making a full inspiration, or coughing.----------

Even, when no pain is felt, it often is the case, that those who labor under Phthisis cannot lie easily on one or the other of the sides, without causing an irritation to such an extent, as to produce coughing, or difficulty of breathing being much increased.------

At the first commencement of the disease, the pulse is often natural, may perhaps be small, soft, and more frequent than usual, but when the symptoms which have been mentioned have subsisted for a long time, it then becomes full, hard, and more frequent. At this time, or perhaps a few days may elapse, and the flush upon the cheeks will make its appearence, more particularly after eating;----------

The soles of the feet will be affected with a-

burning heat, the respiration becomes difficult and laborious, and by degrees, the fever assumes the hectic form, which is thought by some to be more of the remittent kind, on account of its exacerbations twice a day, and after a slight remission makes its appearance about five in the afternoon; This last is however, soon succeeded by another exacerbation, which increases gradually until after midnight; but about two in the morning, a remission takes place, and this becomes more apparent as the morning advances. During the exacerbations, the patient is very sensible to any coldness of the air, and often complains of a sense of cold when his skin is, at the same time preternaturally warm.-- Of these exacerbations; that of the evening is by far the most considerable.----------
From the first appearance of the hectic symptoms, the urine is high colored, and deposits a copious brunny red sediment.----------
The appetite, however, is not greatly impaired, the tongue appears clean, the mouth is usually moist, and the thirst is inconsiderable.---

As the disease advances, the fauces put on rather an inflamed appearance, and are beset with aphthæ, and the red vessels of the tunica adnata, become of a pearly white.

During the exacerbations, a fluid circumscribed redness, appears on each cheek; but at other times the face is pale, and the countenance somewhat dejected.

At the commencement of hectic fever, the bowels are usually costive; but in the more advanced stages of it, diarrhœa often comes on, and this continues to recur frequently during the remainder of the disease, the emaciation is so great, that the patient has the appearance of a walking skeleton.

His countenance is altered, his cheeks are prominent, his eyes look hollow and languid, his hair sometimes falls off, his nails are of a livid color and much incurvated, and his feet are affected with oedematious swellings.

As a general thing, the senses remain entire to the end of the disease, and the mind confident, and full of hope, hardly ever apprehensive, or aware of their danger, and it is not uncommon to meet with persons labouring under its most advanced stages, flattering themselves of a speedy recovery, and forming distant projects under that vain hope.——————
Some days before death, the extremities become cold, and in some cases, a delirium proceeds the event, and continues until life is extinguished. Perhaps, an expectoration of mucus from the lungs may possibly be mistaken for purulent matter, and may give us reason to suspect that the patient labours under a confirmed Phthisis; But I think we need not be mistaken in regard to this point, for we have sure criterions, by which we can distinguish one from the other.——————————————
Let the expectorated matter be desolved in nitridic acid, and caustic lixivium, and add pure water to both solutions; if there is a fair-

precipitation in each, it is a certain sign of the presence of pus; but if there is not a precipitate in either, it is certainly mucus.----------

Pulmonary Consumption, is in every case to be considered as attended with much danger; but is more so when it proceeds from tubercles, than when it arrises in consequence of either haemoptysis, or pneumonic suppuration. In the last instance, the risk will be greater where the abscess breaks inwardly, and gives rise to empyema, than when its contents are discharged by the mouth.----------

The impending danger is generally to be judged of however by the hectic symptoms; but more particularly by foetor of the expectoration, the degree of emaciation, and debility, the colliquative sweats, and the diarrhoea.----------

The disease has, in many cases, been found to be considerably retarded in its progress by pregnancy; and in a few cases has been alleviated by an attack of mania.----------

The morbid appearence most frequently to be met with, on the dissection of those who die of Phthisis, is the existance of tubercles in the cellular substance of the lungs. These are small tumors which have the appearence of indurated glands, they are of different sizes, and are often found in clusters.----------

Their firmness is usually in proportion to their size, and when laid open in this state, they are of a white color, and of a consistence nearly approaching to cartilage. Although indolent at first, they at length become inflamed, and lastly form small abscesses or vomica, which breaking and pouring their contents into the bronchia, give rise to a purulent expectoration, and there lay the foundation of Phthisis.---

These vomica are most usually situated at the upper and back part of the lungs, but in some instances they occupy the outer part, and the adhesions to the pleura are often formed.---

When the disease is partial, only about a fourth of the upper and posterior part-

of the lungs are usually found diseased; but in some cases, life has been protracted till not one twentieth part of them appear on dissection fit for performing their function. A singular observation confirmed by the morbid collections of anatomists, is, that the left lobe is much oftener affected than the right; however, I think it is immaterial, in regard to this point, as far as the treatment is concerned.----------

In the treatment of Phthisis, it is of the greatest consequence, that the various parts of the system be regulated in their functions; therefore, the indications for the relief or cure are, to moderate inflamatory action; to support the strength, and promote the healing of ulcers in the lungs, if possible; and palliate urgent symptoms.----------

The first object may require occasional small bleedings, when the strength will permit, in the early period of the disease, but in the scrofulous,---

this would be very improper.----------
If there is local pain, the use of cupping, leeches, or blisters will be beneficial.----------
The bowels must be kept soluble by gentle laxatives, as cassia, manna, sulphate of magnesia &c, and diaphoresis promoted by saline medicines, or the pulvis ipecacuanha.----------
When there is a wheezing respiration, and the expectoration is not free and easy, an emetic may be of great benefit, and for this purpose ipecac is perhaps as good as any, to promote the function to the skin.----------
I have seen good effects arise from the following medicines, in promoting free raising and expectoration. Scilla, Seneka, Amoniacum Gummi, á a ʒ ss, Ipecac gr v, Sugar ¼ lb Aqua pura, octa ½, These articles made into a syrup, and a tea spoonfull given three or four times a day.------
The inhalation of steam, impregnated with hemlock, or ether, has been recommended for soothing the lungs; and facilitating expectoration.----------

Cicuta, and digitalis, have been employed as remedies, and so far as they moderate the circulation, and relieve pain, they are beneficial. Among the tonic medicines, the mineral acids, are the most generally used.----
Griffith's myrh mixture is perhaps one of the best remedies in the first stages of Phthisis....
It is composed of Myrrh, (pulv) Carbonate of Potash, Sulphate of Iron, Spirits of Nutmeg, Rose water, + sugar.----------
But a great deal will depend on a due regulation of the diet, which should be of a nutritious kind, but not heating, or difficult of digestion. Farinaceous vegetables, milk, fish &c, are very good articles for food.----------
With regard to the palliation of urgent symptoms, the cough may be allayed by demulcents, but especially mild opiates swallowed slowly.----------
Opium in pill, or tincture or, lactucarium, may perhaps be as good as any.-------
Night sweating may be checked by acids;----

Diarrhoea, by the administration of astringents, — such as, Opium, Kino, Chalk &c.----------
In very obstinate cases of diarrhoea, a pill composed of Sulphate of Copper, and Opium a a one fourth of a grain, answers a good purpose.
Sometimes injections of Starch, and laudanum, will afford the patient comfort for a length of time, by suspending the action of the bowels.----------

The most experienced of the Medical Faculty have wisely and deliberately taken into consideration the subject of Consumption of the Lungs, and have done justice to the cause, as far as has been investigated, but researches upon the treatment, have come short of developing a course that will prove successful in cases marked with characteristic symptoms of Phthisis; therefore, all we can do in such cases, is to palliate, and make our patient as comfortable as possible, until he is relieved from all his pain, and troubles by death.----------

New Haven Jan 16th 1850.

George H. Rogers,
Colchester,
Conn.

XIV.

# The Leech.

By,
Henry Smith
of East Haddam,
Candidate for the Degree of Doctor in Medicine

# The Hirudo Medicinalis

In preparing a discourse to be read to men of learning & judgment, as I am, by the laws of this institution, obliged to do in this instance; A sense of my own deficiency, creates feelings of great delicacy & restraint. I am aware, that the least departure from truth, will be quickly recognized. But, trusting to the kindness & forbearance usually exercised by such men; I indulge the hope, that it will be as readily excused. I shall attempt to be wise in the selection I make of a subject; rather than learned in my discourse upon it. I have, therefore, selected for my Thesis, the Hirudo Medicinalis, or Leech. This animal, though so humble in appearance; yet, is not, on that account, the less useful to man. But, carelessly man looks upon such animals, and seldom does he think of them; except, when, necessity puts forth her imperious demands. And why? Because their office is a minor one, and mean, only in his sight. He looks at the Earth— its mountains, rivers, vast seas & continents, with delight & admiration. And, with his eyes

& imagination explores all space & the vast & innumerable bodies which there eternally roll, and is amazed at the infinite & glorious works of God. But, he looks upon an atom with apparent indifference; & seldom considers, that, these great spheres are formed by the addition of atoms. From these particles of matter our bodies & all other organized bodies are formed - each with its proper sphere of action; & nobl, guided by unerring laws, will carry out the design of their great original. So man the Creator has given reasoning faculties. - Has made him superior to all other organized beings; and to him, he has given them all to subserve his interest & comfort. These laws also, have been instituted, by which man shall be governed when he uses them. If, therefore, these laws are strictly complied with, every thing will be friendly to man, & perfectly harmless to his constitution; But, if used without a reference to these unalterable laws, they will be implacable & distructive enemies. It is therefore the duty of all, & especially the duty of the physician, to study the nature of the animal, vegitable, & mineral kin-

gdoms;- the laws by which they are governed, & their application to the necessities of mankind: then with the blessing of God to attend his effort, he will be prepared to select & adapt the required remedy to every case, in which his aid is demanded. Great discrimination of mind is often necessary to determine with assurance what article of medicine is indicated. The most experienced sometimes err. But the prudent physician first examines with great care, all signs of disease, the constitution, habits, & locality of the patient; considers the season & prevailing diathesis: then selects,- perhaps a cathartic, an emetic, a tonic, a narcotic; or perchance there is nothing in the whole catalogue of remedies will be adapted to the main indication, but the Hirudo, the subject of my discourse.

I will first give an anatomical discription of the Hirudo, then speaks of its use as a therapeutic agent.

The Hirudo is an aquatic worm, & belongs to the class Annilides, which contains worms that have red blood. It has an invertibrated articulated body;-

flattened, & tapering towards each end, & terminating in circular, flattened disks. The hinder one being the larger of the two. It has a cutaneous, muscular, digestive, vascular, respiratory, & nervous system. Its cutaneous system consists of a transparent epidermis, & the corium. The former is thrown off every three or four days. The corium is a condensed cellular tissue composed of globules, which are formed into rings, — about one hundred in number, — are impregnated with a pigment, the colour of which varies in different places, & gives the various colours presented to its surface. The muscular system consists of fibres running circularly, longitudinally, & obliquely. The circular fibres are the most external. The longitudinal the most internal. The cutaneous & muscular systems form the parietes of the body. The digestive system consists of a mouth, alimentary tube, salivary glands & liver. The mouth is placed in the centre of the anterior disk, & consists of two semicircular lips, which can easily be adapted to the part to which they are applied, & a vacuum formed within, to aid the animal, to hold to the part.

Within the lips are three lens-shaped, cartilaginous jaws, or pincers; each armed with about sixty minutely pointed teeth; so arranged, as to make a triangular incission, in the flesh. The oesophagus is a muscular tube, about one fourth of an inch in lenghth, & dilates as it approaches the stomach. The stomach occupies about two thirds the length of the body, & is divided into eleven compartments or cells: And each cell from the second to the eleventh gives off a cecal sack. The last sack terminates by a funnel-shaped projection, in the intestine. The intestine is about one inch long: And is divided into large & small intestines. The latter is about one half its length; The large intestine, with the rectum, the other half. At the upper orifice of the intestine, is a valve; at its lower end a sphincter. The anus is situated on the last dorsal surface of the last ring. There are around the oesophagus whitish bodies called glands; & a brownish mass, with ducts that open into the stomach & intestines. The vascular system consists of four great pulsating vessels, giving off numerous ramifying branches; which carry

the blood, without the aid of a heart. The respiratory system consists of small apertures called stigmata, - arranged in two rows on the abdominal surface, & occur at every fifth ring. These openings lead into sacks, called pulmonary vessels, or cryptae, which are lined with a mucous membrane, & filled with a whitish fluid. The respiration, Mr. Brandt thinks, is effected solely by the skin. The nervous system consists of a chain of ganglions, commencing at the oesophagus, & extending the whole length of the body. The first ganglion is the brain, & supplies it's two eyes, & the neighbouring muscles. The other ganglions also, distribute the nervous influence, each, to the organs in it's vicinity. The sexual organs are double. It has male & females organs, each in its own body; yet, it cannot produce its species without the aid of another. It is an oviparous animal, & deposits its eggs in holes in its own native waters, or in moist places on the shore, where they are impregnated by others. It deposits its eggs from May to September. They are cylindrical in shape & brownish in appearance. On its exterior, when deposited,

there is a prothy layer, which soon becomes hardened, & forms a kind of skin, or cocoon, of a spongy fibrous texture; within which the little embryo is kept in durance until it is matured & brought forth.

Having thus given the Anatomy of the Leech. I come to what, the most interests the surgeon & physician. — Its use as a Therapeutic agent. The use that is made of the Hirudo, & it's peculiar adaptation to the object for which it is employed; is sufficient to lead us to the opinion, that, the Creator designed the animal for that special purpose.

When the Leech was first employed as a remedy in diseases, is not known. It is not, however, important to know how long it has been; but, when it should be used as a remedy. The desideratum to combat inflammation successfully, especially that of a local character, was discovered, when the powers of the Leech was known. And, I have the assurance to say, that, had this humble subject occupied the minds of the mass of people, as gold has, there would have been far less inflammation of the brain. The Leech is indicated when there is a local

inflammation requiring abstraction of blood from
the part only, or, ~~when~~ when there is a phlogistic state,
if general depletion cannot be employed. It can be app-
lied directly to the part, and its antiphlogistic effects real-
ized without debilitating the patient. When the disease
is quietly, & undisturbed by any other means, leading
the patient, or a part, to distruction, then it is, that
the Leech comes to the rescue, with all the assurance
& efficiency of a master workman, & expells the dis-
organizer, & restores the part to its original state.
Perhaps there is not a disease in which this remedy
is not sometimes indicated. In congestion of the brain,
the Leech is an admirable remedy applied to the temples
& back of the ears. In Laringismus, after general
bleeding, the free application of leeches over the larynx,
will often cut short the disease. In Bronchitis it
is indicated, when the constitution of the patient will
not bear general bleeding, applied to the breast, & betw-
een the shoulders. In Cynanche Trachialis, it is an effi-
cient remedy, applied to the throat & chest. In Perito-
nitis the aid of the Leech, is demanded, applied, after
general bleeding & evacuation of the bowels, over

the tender parts of the abdomen. In Hepatitis when there is great tenderness upon pressure over the affected part, the Leech is of great service. In Pleurasy it is frequently employed as an adjuvant to other remedies. In Arteritis & Phlebitis applied along the course of the affected vessels it is a remedy of much value. It is frequently employed with good effect in fevers of an inflammatory type. It is a remedy that has been used to some advantage in Gout as a palliative. In Pneumonia after general bleeding & other remedies, if pain in the side, & other symptoms of inflamation continue, the Leech may be applied to the chest, with hope of relief to the patient. It is used in Catarrh, Small Pox, Rheumatism, and, indeed, its use is so common in diseases, that I am obliged to cut short the catalogue of them; in order to save time that can be better employed in reading. We are not surprised when we consider their frequent indication in disease, at the enormous quantity used; which in France alone, according to Pereira, the consumption of leeches is estimated at one hundred millions annually.

In applying the Leech care should be taken

cleans the part, - for, they are far more particular
in reference to cleanliness; than many of those on
whom they are applied. If they will not bite readily, the
skin should be moistened with a little milk &
water, or with blood. Hemorrhage from leech
bites may be arrested by applying cold water
to the wound, or by pressure, or by touching it
with a Nitrate of Silver. Sometimes it may be
necessary to stick the wound. After the leech has
filled itself with blood, a little salt should be sprinkled upon it, to make it disgorge itself, or the blood
pressed out with the hand; it should then be put into
clean water by itself, as others would be diseased
by being put with it. There are several varieties of the
Leech; but two only are used, — The Hirudo Medicinalis
of Europe, & Hirudo Decora or Medicinalis of this country. The European Leech is much larger, & capable of
drawing a much greater quantity of blood, than the
American. The former will draw about four ounces;
& the latter only about one as its maximum. The
American Leech is prefered by some, as the
quantity of blood taken, can be more easily graduated,

than with the European. They are found in considerable numbers in Pennsylvania & some of the other States; but have not been an object of much traffic in this country. The European Leech inhabits the ponds & marshy grounds of the North of Europe, & has been an object of considerable traffic there; But the extensive use, that is made of the Leech, by the physician & surgeon, has nearly exhausted the waters in that part of Europe, of their antiphlogistic properties (except what they possess in their coldness) & the gatherers of them are seeking new ground eastward, & have gone as far as Pultavia in Russia, from which they are bringing the useful little animal, by millions within prescription limits. Whether they will ever be exhausted is not for us to know; but sufficient to say, that we are peculiarly blessed in their present existance; & in the knowledge of their utility. Of the method which the gatherers take to procure them from their native waters; and their diseases I will not speak; as that more particularly interests the dealer in them. The common method of preserving leeches, is by putting them in jars, with moss &

pebles at the bottom, in clear, soft water, which is changed two or three times a week; and the jar, with a linnen cloth placed over it, is located where it will not be subject to sudden changes of atmosphere. It appears to me, that, a better method, especially for physicians in the Country, is, to sink a barrel or something of the kind, in a stream of clear water, and so arranged, that the water will pass through, & be a continual supply of fresh water without trouble to the physician. I do not know but this method is sometimes practiced. Having thus very imperfectly discribed the Leech, & its indication, I leave the subject to others, whose antiphlogistic turn of mind, perchance, will do strict justice to the humble Hirudo———

Henry Smith

XV.

# Epidemic Cholera

By

Joel Washington Smith
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Candidate for the Degree of Doctor in Medicine

# Epidemic Cholera.

No disease of modern times to which the human family is subject has been investigated with greater zeal and assiduity by the medical profession, than Epidemic Cholera. From its extensive diffusion and rapidly devastating effects, every circumstance calculated to throw light upon the subject becomes invested with great interest and importance, and especially so to the professed guardians of the public health. It is not my object in the present essay to discuss the merits of, or the objections to the many and conflicting hypotheses which have been advanced in regard to this disease, nor to attempt an explanation of the different phenomena which have been observed in its

progress, but briefly to consider the History, Symptoms, Causes & Treatment of epidemic Cholera.

History- In regard to its history there is a diversity of opinion, some maintaining that it is only a malignant form of common cholera, but the preponderance of evidence is in favor of its being an entirely different disease. Those who admit this, however, are still divided, as to whether the disease is a new one, or has existed from an indefinite period. Notice of this, or of a very similar disease is found in the writings of Hippocrates, Aretoeus, Celsus & Galen; while the more modern writings of Willis, Sydenham, Bontius, Monro and others, furnish very accurate description of epidemic cholera. The evidence thus afforded, though perhaps not conclusive, is at least strongly presumptive that the epidemics of those

writers were identical with the present disease. In India, it is believed to have prevailed at different periods, but it was not until within a third of a century that it extended itself from one country to another, so that at present nearly all portions of the globe have been scourged by it to a greater or less extent.

Form of Attack- There are several distinct forms in which the disease makes its attack. In some cases it is sudden and without any premonitory symptoms, but this form is comparatively rare. Commonly the specific symptoms are preceded for a time, frequently days, by certain premonitory symptoms. At times the different symptoms appear to run almost imperceptibly into each other, but for the sake of greater perspicuity I shall divide them into three stages; and this often appears to be a natural division.

I. The Incipient or Premonitory Stage- Diarrhoea

is almost always present as one of the earliest symptoms, the discharges at first, fecal and bilious, gradually becoming of a serous character, like those after the cold stage is completely formed.

The diarrhoea is often accompanied (a)preceded by a sense of languor, lassitude indescribable suffering, deep colicky pains, rapid prostration, anorexia, at times by profuse sweats, nausea and ~~vo~~ vomiting, disturbance of the senses and occasionally, by great mental depression for a longer or shorter time, or until the stage of collapse. In some cases the feeling of debility and prostration is so severe that a considerable degree of collapse will have ensued before the occurrence of vomiting and cramps.

Purging usually precedes the second stage for several days, at other times only for a few hours, but from 24 to 48 hours may be considered as the mean duration of the incipient stage.

The tendency of this purging is to pass into the subsequent ~~stage~~ "stage" of collapse and the transition is often hastened by some dietetic error, excess or exposure.

Occasional cases have occurred in this but according to accounts more frequently in India, in which there have been no premonitory symptoms, before the stage of collapse, and still more rarely of those in which there is no discharge from the stomach and bowels, and no reaction but almost immediate death. This form has been termed "cholera sicca," said when occurring is a most hopeless and fatal variety.

II. Symptoms of the Cold Stage - This has usually been denominated the cold, collapsed or asphyxiated period. The precursory symptoms increase in severity, the vomiting and purging becomes more severe and constant, the stools at first foecal and perhaps slightly bilious, now become more liquid and whitish, resembling

a decoction of rice or unclarified whey, of a peculiar insipid, spermatic odor, and the same kind of fluid is also discharged from the stomach.

These discharges may or may not continue during this stage, or throughout the disease, but are very rarely absent.

There is deep pain and sense of oppression in the epigastrium, with distressing hiccough and the patient is harrassed with constant thirst.

Cramps, or spasmodic contractions soon come on, affecting not only of the calves of the legs and abdomen, but all the muscles of the body, and often comprise one of the most distressing symptoms of the disease.

These are rarely absent ~~most in some cases~~ and in some few cases have been the only symptoms of an attack.

The pulse is frequent, feeble and small, gradually and at times speedily becoming imperceptible in the extremities,

the coldness of surface increases rapi-
-dly, the countenance becomes anxious
and hippocratic, the skin becomes
corrugated as from long exposure in
water, the size of the body dimin-
-ishes perceptibly, the nails livid
and the genital organs retracted.
The eye is sunken and often
surrounded by a bluish circle, the
cornea dull and dry, the conjunctiva
pale and at times injected and at times
injected in its lower portion, the
respiration frequent or slow and irregu-
-lar, as is thought from spasm of the
muscles, the breath cold, the quantity
of carbonic acid diminished, the tongue
cold and moist, the secretions arrested,
the voice becomes husky and feeble, or
is reduced to a whisper, the face and
extremities moistened by a cold clammy
sweat, and in some cases the surface
is covered with livid blotches.
During almost the entire stage of

collapse, the intellect remains unimpaired, but there is a remarkable apathy and unconcern as to his own condition as well as indifference to to all surrounding objects. There is little suffering or complaint except of a sense of oppression over the praecordia, and the stomach becomes insensible to the most powerful stimulants. Very few recover from this condition of extreme collapse, but in many cases from the disease being of a milder type, or from the remedies employed such a degree of collapse did not take place.

When death occurred during this stage as it did in the great majority of the fatal cases, it was often within two or three and seldom delayed beyond ten or fifteen hours from the commencement of this stage.

III. Symptoms of the stage of Reaction - At the close of the former stage, if death does not take place one of two things will

occur, either the health will be restored without the intervention of any new untoward symptoms, or the symptoms of collapse will be succeeded by those of the stage of reaction. In this stage the symptoms vary greatly according to the degree of reaction. Commonly after a variable length of time, and often before this stage, there is a cessation of the vomiting ~~and~~ purging and cramps, the coldness ceases to increase, warmth of the surface gradually returns, the pulse, if absent again becomes perceptible, soft, fuller and stronger and febrile in character, the patient becomes more sensible, the color of the face returns & the countenance becomes expressive and natural. If the termination is to be favorable the vomiting ceases, and though the diarrhoea may continue, the discharges become foecal and bilious, the secretions are reestab-

-lished, the pain, nausea thirst &c.
pass off, the circulation becomes
regular and convalescence is established.
At times reaction is more slow and
the patient remains for an uncertain
period in a most critical and dangerous
condition which may terminate in death
or recovery. If reaction is very energetic
a new order of symptoms may arise
equally dangerous to the patient as
they give rise to spasms, convulsions,
congestions and inflammations both of
a local and general character.
There is frequently great sensibility to
light with giddiness and severe pain
in the head, the tongue at first clean
and moist, becomes dark, sordes accu-
-mulate, the eyes become more injected
and turned back, the intellect grows
more torpid, presenting at this stage
many of the symptoms of the last
stage of Typhus fever. The duration of
this stage is usually from five to ten

days and in the extreme cases, is almost uniformly fatal. There is always great tendency to local congestions and unequal distribution of the circulating fluids. During convalescence inflammatory affections of the gastro-intestinal canal and of the respiratory organs often make their appearance. In other cases instead of convalescence there is often a development of fever of an intermittent, bilious or typhoid type, but in this country by far the most characteristic and formidable secondary affections are those of the brain or nervous system.

Predisposing & Exciting Causes - There are numerous and often act interchangeably, that is, those which are predisposing in one case may prove exciting in another and vice versa. Among the former appear to be a high degree of temperature united with moisture, as in low damp situations, crowded ill ventilated dwellings, want of clean-

-liness, insufficient clothing, imperfect nutrition from a scanty or improper supply of food, irritable bowels, or any other circumstances which tend to lower the vital powers below the standard of healthy action. Among these causes I would mention the system of extreme dieting, not to say starvation which has been so rigidly persevered in by many during the prevalence of cholera. By depriving themselves of their usual quantity and variety of nutriment they rob the system of a portion of its healthy nutrition, and by proclaiming this exclusive diet, fear is created and seizes upon many who feeling at a loss as to what they can safely eat, finally conclude that to be upon the safe side, as they regard it, will restrict themselves to a scanty supply of only a few articles, forgetting that abstinence may be and often is as bad as excess in causing debility.

The result has been such as was to be expected; The general health gives way, the powers of the system are weakened and thus is induced a strong predisposition, or a standing invitation to an attack of the disease. Among the direct or exciting causes are excessive fatigue, intemperance, exposure to cold, or sudden changes of temperature, as night air, the depressing passions, improper food or drink, profuse evacuations from any cause, venereal excesses, long watching, attendance upon the sick, or exposure among those suffering under the disease, and many other circumstances too numerous to mention. In addition to the above mentioned causes, there are occasional cases for which we are unable to discover any assignable cause.

Diagnosis- In the early stage it may be confounded with cases of poisoning,

common cholera, indigestion, gastro-
enteritis, asphyxia, the plague and
some other affections, but after
the period of collapse, it can seldom
be difficult, especially if occurring
during the prevalence of the disease.

Prognosis- If properly treated during the
first stage it could almost invar-
iably be arrested. When the disease
was fully formed, but had not yet
proceeded to complete collapse, the
termination was favorable in a
great majority of cases, under appr-
opriate treatment. But it will
always be favorable directly in prop-
ortion to the degree of collapse.
It is not always when the purging,
vomiting and cramps are most vio-
lent that there is the greatest danger,
for in some cases where those symp-
toms ceased, such apparently favorable
change was owing only to the natural
progress of a bad condition

into one more hopeless. The fatality varies considerably in different localities and has usually been much greater at the commencement and gradually diminished with the continuance of the disease. It will be more favorable in a young, or middle aged and previously healthy subject, and towards decline of the epidemic, than when occurring in the aged, or those previously debilitated from any cause, and at the commencement of the attack. Very few recover from the condition of extreme collapse, but if symptoms begin to appear, there is ground for hope, though there will be great danger from the subsequent stage of reaction. The cold stage may terminate fatally in consequence of the discharges from the stomach and bowels before cyanosis and cramps come on, and if the prostration

is rapid and the degree of collapse extreme, we may usually anticipate a serious or fatal termination without passing into the third stage, but if the patient survives and passes into it, the disease will be malignant and dangerous in proportion to the intensity of the degree of collapse.

Treatment- Much may be done by early treatment to prevent an attack, and prophylactic measures involve considerations of the highest importance in regard to public and private hygiene. Free ventilation of dwellings and strict cleanliness are important. The diet should be such as will preserve the digestive organs and general system in the soundest health. The food should consist of a mixture of animal and vegitable food, of sufficient quantity, of good quality and well cooked.

Regularity in eating and drinking, of exercise and rest are essential. Excessive exercise of body or mind and all sudden changes of temperature, or of the habits (unless bad) should be carefully avoided. Costiveness should be guarded against, and the necessity for cathartic medecines, thus be avoided.

The rich should be cautioned against excessive indulgence and the poor should be liberally supplied with wholesome food and warm clothing, and the fears of all should be quieted as much as possible.

In the treatment of the disease when fully formed I do not propose to lay down any very definite rules, for I know of none; and it is only by adapting our remedies to the ever varying circumstances of individual cases and different stages of the same case, rather than from a search after, and trial of specifics for the symp-

-tom: or portion only of an extensive series of changes, that we can expect to be successful.

1st Stage- During the continuance of the incipient stage, if there is manifest derangement of the stomach & bowels, the use of emetics lavatives and the milder cathartics particularly calomel will often be indicated.

The various preparations of opium alone or in combination with calo-mel will be found useful. Sinapisms to the stomach and extremities, cataplasms over the abdomen, and the use of the various astringents as tannin and the acetate of lead, alone or combin-ed with opium and other remedies are often valuable adjuvants, but large doses of opium are objectionable.

If there is great depression and muscular weakness the patient should abandon all occupation, and if robust and there is plethora, bleeding will be proper and may be repeated with benefit.

If there is an opposite condition the tepid bath, or affusions of warm water will be proper, followed by frictions with warm flannel, repose and the use of diaphoretic drinks and other means for promoting perspiration. Afterwards tonics and stimulants may be indicated.

2d Stage- In this stage the same indications are presented as in the preceding, with the additional ones of checking the excessive sweats and of restoring the loss of the watery fluid and salts sustained by the blood. Diluent food and drinks will accomplish those ends during the early stage, as fully as any other means. In no case should bloodletting be resorted to after the stage of collapse is fully formed, though in many cases even after there is a partial degree of collapse it will prove a most valuable remedy. Calomel alone or combined with opium and astringents exerts a most powerfully

beneficial influence by its sedative effect in tranquilizing the system, allaying gastric and intestinal irritation and in restoring the secretions to their healthy condition. Whenever the stomach can be brought under its influence there is usually a return of the suspended secretions, with a fair prospect of recovery, or of rendering the symptoms of the stage of reaction of a milder type. Strong mercurial ointment mixed with camphor and capsicum has at times been rubbed over the whole body and with very gratifying results when the speedy action of mercury was desired. Camphor is a valuable remedial agent from its known power of checking diarrhoea, allaying irritation and promoting perspiration. Cups, leeches and sinapisms, with fomentations, over the abdomen or along the spine are beneficial in cases accompanied

by much pain and obstinate cramps.
Cold water or small pieces of ice is
very grateful in allaying the intense
thirst. Powerful irritants are not generally
serviceable either externally or internally.
To allay the cramps and restore the
healthy
action of the skin frictions and baths,
at times of a stimulating nature, and
ranging from near the freezing point to
that of blood heat, so as to suit the hab-
-its, constitution and excitement of the
patient, will be found serviceable.
Dry heat applied in various ways, has
seemed in some cases to produce more
favorable effects, but there are cases where
heat applied in any form appears to
aggravate by increasing the already
excessive exhalation of the cutaneous
surface and by the disagreeable sense
of heat which it has upon the patient.
In the use of stimulants, some of the
milder ones as carbonate of ammonia,
oil of turpentine and capsicum are

to be preferred. In some cases after the causes of the disease have ceased to operate and only the effects remain, tonics as the sulphate of quina may be advantageously employed. From this stage, when extreme, there is but little prospect of recovery, and the functions of organic life are so nearly suspended, or destroyed that medicines if poured in cannot be absorbed and thus can have no beneficial influence upon the system. In this condition diversified and powerful means have been resorted, but the patients have generally sunk in spite of every thing. Cases have occurred where all artificial means have failed to produce reaction but in which the patient has appeared to emerge from the cold stage, solely by the unaided powers of the constitution, with a faint chance of life in the very bad form of reaction which is sure to follow. In some of the desperate cases we may with propriety successively try all of the means menti-

-oned, or any others that are likely to afford relief. Naptha has been used with advantage to check diarrhoea and allay irritation. Chloroform has also contributed much towards the temporary relief of the patient by relieving the painful cramps. Carbonate of Soda has been freely used and with much asserted benefit. Warm enemata of water and various salts and substances have been tried with variable success. The injection of warm and saline fluids into the veins has been resorted to, and with temporary benefit, but in nearly all the patients have soon relapsed into their former condition. It is not impossible however, that if more attention had been paid to the nature, quantity of the fluid and manner of performing the operation, that more decided and permanent advantage would have resulted.

3d Stage - In this stage the treatment will need to be adapted to the variable morbid conditions and guided by such general principles as are applicable to all other

affections. There is usually a great tendency to local congestions and inflammatory affections, and when occurring they must be treated by sedatives, antiphlogistics and the usual means with an energy just proportionate to the degree of reaction, except that local depletion is preferable to general bleeding. The chief reliance is to be placed on fomentations, rubefacients, blisters, mercurial and proper attention to regimen. If typhoid symptoms make their appearance, the case may require stimulants and tonics, as carbonate of ammonia, wine whey, oil turpentine, quina &c as in ordinary typhus. Attention to diet & regimen is important in the treatment of every stage, but particularly, during the stage of reaction. Convalescence is at times rapid, but oftener very slow, and the constitution at times appears to undergo an entire change.

XVI.

# Typhus.

By
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# Typhus or Continued Fever

That hour has at length arrived to which I as a student of a benevolent profession have long and anxiously looked forward: and in accordance with the long established rules and usages of this honorable Institution, I am called to render to this board an account of the manner in which that period of preparation has been spent; and to read and deliver into your hands for inspection, and to the library of this Institution, as a lasting memorial, my recorded views and opinions respecting some subject connected with the Medical profession, and with which the Medical practitioner must necessarially be conversant.

That subject which I have selected for the occasion, though fully aware of my inability to do it justice, is Typhus or Continued Fever.

## Causes.

I imagine that any of the ordinary exciting causes, of fever of other types, may in a system, predisposed

produce the disease now under consideration, for the typhoid is generally if not always dependent upon the character of the constitution, into which it is received. Hence, cold, mental agitation, excess of muscular exertion intemperance, and a thousand other excesses to which our frail natures are liable, which might in one of a plethoric habit produce fever of an inflammatory type, will often in a debilitated constitution give to the disease a typhoid complexion from the very first.

I would then consider whatever tends to relax the living fiber, and debilitate the nervous energies, as so many predisposing causes. And whatever tends to ignite the thus accumulated combustible matter as so many exciting causes, among which may be enumerated exposure to a cold and damp atmosphere mental anxiety, exposure to the peculiar miasmata, or, in fact any thing that tends to depress the social kindly spirits which we naturally enjoy. Furthermore I believe the disease to be communicable, from person to person. I am however well aware that this view is opposed by many medical men of ample experience and discrimination, but supposing the disease be not

one of those, that helps to swell the contagious list, what harm can it do the Physician to consider it as such.

The susceptibility however of disease of every kind varies very considerably in different individuals, and hence we find that many persons upon an equal exposure to typhus contagion, with others receive it far less readily, and in some cases seem to be favoured with a natural immunity. As when the system is debilitated, it receives the poisonous influences, we can easily conceive that when the opposite state prevails, the body is less susceptible to this or any other poisonous influence. But there seems to be something beyond this - viz. the nature of the idiosyncrasy itself. That the exciting cannot produce its specific effect, without the presence and cooperation of the predisposing cause, I am fully convinced, and that the excitant may lie dormant in the system till the predisposing cause makes its appearance, and there produce its full effect, no doubt. I will not assert that this is so - but that to me it seems very probable.

That the human system is at one period capable of resisting influences, which it is not at another, I

think most clearly evidenced by the remark of Sir A. Cooper, That Medical Students in dissecting, at the commencement of a course of lectures, cut their fingers with entire impunity, but at a more advanced period, when the system is reduced by hard study, and constant attendance upon lectures, such accidents are followed, by consequences much more serious. Dr. J. M. Good in his practical work on Medicine says, The febrile miasmata is often absorbed in dissection of dead bodies, by the accidental wound on the hand and excites its specific influence on the body of the Anatomist. Man, is governed so much the creature of habit; that his constitution is in a thousand ways, brought by degrees to endure poisons of the most fatal nature. This we see daily in the use of Opium, Alcohol, and tobacco. But where is the adaptation of the constitution, to the circumstances, by which it is surrounded, more conspicuous than in the disease now being viewed. Not indeed in all persons for all are not prosped of the same pliability of constitution; and hence it is perhaps that Physicians and nurses, so seldom take disease of their patients.

But I think that the mind is in many instances a direct producer of disease, or rather the influence of the mind upon the body. Fear, I imagine to be one of the greatest predisposing causes of disease. I think I witnessed disease thus produced in several instances during the late epidemic dysentery. (1848).

Are not hypocondriacs living witnesses of what injury may be produced to the body through the mind?

Diagnosis.

This disease has received from Physicians of all ages the appellations of Typhus, putrid, low, nervous, and malignant; titles sufficiently indicative of the malignancy of its nature. So far as I have been able to learn from books, and my own limited observations, the more prominent symptoms characteristic of this disease, are generally preceded by loss of appetite, and of muscular strength, the patient becomes, pale, languid, and obstructed, he is pale and easily exhausted, complains of wandering pain in the head, back and limbs. his tongue is covered with a mantle of white, the bowels, are irregular, sometimes confined, at others relaxed.

symptoms resulting, probably from an altered condition of the nervous system. Soon symptoms of a more startling nature present themselves. We may not in all cases find all of these premonitory symptoms, but enough of them to give character to the disease.

The intrusion of this disease is generally marked by a rigor, succeeded by an opposite state of body, then the patient complains of pain in the back, shoulders, and not unfrequently of severe aching across the forehead. At this time the pulse may be full, frequent and hard, seeming to indicate depletion, but alas! this is too often the brightest side of the picture. Soon extreme febrile depression manifests itself, which shows clearly how inappropriate would have been the abstraction of blood. As the disease advances, the pulse becomes more frequent and weak, feeble and thready, and is easily compressed; the tongue has now exchanged its mantle of white, for one of dark brown or nearly black: the lips become dry and parched, the lining of the cheeks, teeth, and gums, are covered with a foetid sordes: the abdomen becomes tumid and tympanitic: the skin is hot and dry. The tongue is sometimes dry and smooth, presenting

a line of red, there a white fur will be seen extending over the central portion, sometimes divided by a streak of brown which occupies the median line, this is often the first step towards dryness, and change to a darker hue. Diarrhoea is sometimes an early symptom, but is generally postponed to a later period of the disease, when it is present, the stools are frequent, and either of a dark color and foetid, or of a yellowish appearance.

If we make pressure upon the abdomen, we find it hard and resisting, as though its walls were composed of some inelastic substance. Pain is not unfrequently complained of when pressure is made in the right iliac region, over the cæcum. In the advanced stage there is perceptible a gurgling noise as though fluids, and flatus were in the cavity. The patient seems entirely indifferent as to his situation, he seems to be in a state of somnolency. Soon these symptoms are succeeded by delirium. The patient lies motionless, and on his back. Muscular depression is so great a the tendency to stupor and indifference so marked, that the stools are passed, apparently without his being conscious of it. The urine is scanty, high colored and

offensive. Another symptom, though not pathognomonic of this disease, is retention of urine, or there may be a constant dribbling, dependant probably upon a partial paralysis of the muscular coat of the bladder. Now the symptoms are expressive of disorder in both, the nervous and sanguiferous systems. In seven or eight days, what are called the typhus symptoms, develope themselves more distinctly. The skin is often unnaturally dusky, and hemorrhage from the bowels is not an uncommon occurrence, produced probably by ulcerations upon the mucous membrane of the intestine, eroding and dividing some of the vessells there situated. But undoubtedly, ulceration may and often does take place, without producing hemorrhage, for the vessells previous to their erosion may become obliterated by adhesive inflammation. Occasionally hemorrhage shows itself under the skin in some petechiæ. In these cases the hemorrhage is strictly passive, and is, I believe generally considered a symptom of the worst kind, depending probably upon a morbid condition of the blood, for it must necessarily be deficient in hematosine. The

coats of the blood vessells, with their hematosis membranes, are probably also in a state of relaxation. When these fatal symptoms are strongly marked, there is exhaled from the patient's body a peculiar fetor, his tongue becomes more dry and fissured presenting a darker hue. Sloughs are observed on the nates, from the mere pressure of the bed on which he lies. In extreme cases the toes are said to have mortified. When the disease is about to terminate favourably, the most severe of the symptoms diminish, the patient begins to take more notice of what is passing around him, that air of indifference which had enveloped his countanence clears away, the temperature of his body becomes more natural and healthy, the tongue becomes more moist, and clean at its edges, the pulse, is stronger, fuller and less frequent. the evacuations become less frequent, and assume a more healthy aspect, and when nature makes her demands, he is conscious of it and informs his attendants of his necessities. But in many cases the amendment is so gradual, as to render it impossible to say when it

commences. Treatment. Various authors have written upon this disease giving symptoms, treatment prognosis &c, and Students while perusing these works might think it an easy matter to distinguish and treat such a disease. The treatment of typhus fever is adapted to the fulfillment of certain indications as presented to the mind of the medical practicioner in that particular case.
Some recommend one course of treatment, and others a different, both equally certain of the merits of their own chrished hobby. But ought it not to be remembered, when any particular treatment is advised for any disease, that the character of the prevailing epidemic should be the test of its propriety.
Sir John Clarke, remarks, "Each author takes the epidemic which he has witnessed, as the type of all and unreservedly condemns all treatment which does not agree with that which he has found successful. I believe that many diseases formerly acute and enteric, now assume a type more atonic and chronic. This may be the case with this disease, hence the desire of the lancet. Febrile inflammation and ordinary inflammation are not identical, and the difference

between the two conditions is such as to require a very considerable modification, in the treatment appropriate to each. It is in vain to hope to terminate fever by a stroke of art. The pursuit of a remedy so long and earnestly sought endowed with the power of cutting this disease short, is to the Physician, what the search after the philosophers stone was to the alchemist, with this difference, that the Alchemist engaged in a vain pursuit lost his time and labour, but the physician engaged in a pursuit equally hopeless, will too often in addition lose his patient. Typhus fever cannot be cured instantaneously. And to bring a fever patient under the influence of agents capable of exciting a powerful action upon the system, with the expectation of removing the disease is pregnant with danger. But the severity of the disease may often be moderated, fever being violent and dangerous, it may often be rendered mild and safe. The physician holds a station similar to that of a pilot at sea during a heavy storm. he can if properly qualified, so adjust the rigging, and guide the

as well as to ride unharmed through the elements which every moment threaten to engulph him, but he cannot rule the winds, nor the raging billows. The Physician treating a case of typhus fever can do no more. If the case comes under his care early, and he knows with promptitude and decision at what to aim, he will rarely fail in his effort to render the disease mild. The common Continued fever of this Climate, in its mildest form may require little or no treatment there is no affection of any organ severe enough to require the application of any powerful remedy. All the organs which constitute the febrile circle, are deranged in their functions, but the derangement is often so slight that a spontaneous cure occurs, not unfrequently. Confinement to bed, abstinence of stimulants, low diet, and a purgative at night consisting of Calomel grains ij with rhei grs vj, constitutes all the treatment necessary. But unfortunately these forms but a small proportion of our cases. Because the disease is sometimes mild in its commencement it is not to be supposed that it will continue so through its subsequent stages. The train only is apparent, the

magazine is concealed, the only safety of our patient is to prevent the train fire being kindled, if that be once kindled, it may be no longer possible to prevent the explosion, or to save our patient from destruction. Now what is to be done? Why we must treat the symptoms as they arise, and anticipate those, which generally follow, instead of treating, as a case of fever simply, or as other physicians have, successfully treated typhus, many remedies have been proposed as useful in this disease. Some are still retained, while others have long since fallen into disuse, some of them perhaps undeservedly. Emetics were formerly much used, and I should deem an emetic of Ipecac, of service now if called early to a case, where gastric disturbance was a prominent symptom. I should prefer Ipecac to Antimony on account of the depressing agency of the latter.

Blood letting is a remedy too that has had its devoted advocates, but it is now, I believe a remedy less applicable than formerly. Purgatives, to clear the intestinal canal of offending matter are useful. Where the skin was hot and dry, it agreeable to the patient, I would sponge the extremities with cold water, alone, or mixed with vinegar or

spirit. Mercury I should employ if I thought the symptoms indicated it, but I believe they do not generally.

Opium, I should consider a valuable remedy in this disease, when judiciously employed, and a remedy equally injurious when indiscriminately used. I should be careful to distinguish, symptoms produced by exhaustion of nervous influence, from those produced by congestion, or a determination of blood to the brain. I should bear in mind, how far an opiate might influence subsequent symptoms. Opium or some of its preparations are valuable for removing that, worst of all symptoms, Sleeplessness. It is also an invaluable remedy, either alone or combined with other remedies, for suppressing diarrhoea.

Stimulants, I consider, as remedies, indispensible in this disease, I would not however commence their use immediately. Dr Rush formerly of Windsor, remarked that all patients in typhus fever require stimulants, and that the majority of such patients require them, by the last of the first week, or commencement of the second. In many cases I believe, some of the Irritants may be serviceable, by rousing the different organs to the performance of their vital functions. Capsicum is perhaps

as good as any of the class- If Blisters were indicated I should apply them.

I should always be particular to enquire after the condition of the patients bladder, and never to trust to anything but my conviction after having practiced percussion over the hypogastric region. If there should be retention I should perform Catheterism, and perhaps give minute doses of tinct of Cantharis.

Tonics, I would administer as soon as I thought proper, with some of the vegetable bitters, for the purpose of supporting the system, and restoring tone.

Furthermore I have only to say, should other symptoms than those described arise, I should select and administer according to the best of my judgment and abilities, those remedies indicated

Wm C Williams jr

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